



## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 761

[EPA-HQ-OLEM-2021-0556; FRL-7122-02-OLEM]

RIN 2050-AH08

### Alternate PCB Extraction Methods and Amendments to PCB Cleanup and Disposal Regulations

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA or the Agency) proposes to expand the available options for extraction and determinative methods used to characterize and verify the cleanup of polychlorinated biphenyls (PCBs) waste under the federal Toxic Substances Control Act (TSCA) regulations (also referred to as the PCB regulations). These proposed changes are expected to greatly reduce the amount of solvent used in PCB extraction processes, thereby conserving resources and reducing waste. In addition, the proposed changes are expected to result in quicker, more efficient, and less costly cleanups, due to greater flexibility in the cleanup and disposal of PCB waste, while still being equally protective of human health and the environment. EPA also proposes several other amendments to the PCB regulations, including the amendment of performance-based disposal option for PCB remediation waste; the removal of the provision allowing PCB bulk product waste to be disposed as roadbed material; the addition of more flexible provisions for cleanup and disposal of waste generated by spills that occur during emergency situations (e.g., hurricanes or floods); harmonizing the general disposal requirements for PCB remediation waste; and making other amendments to improve the implementation of the regulations, clarify ambiguity and correct technical errors.

**DATES:** Comments must be received on or before [INSERT 60 DAYS AFTER THE DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]. Under the Paperwork Reduction Act (PRA), comments on the information collection provisions are best assured of consideration if the Office of Management and Budget (OMB) receives a copy of your comments on or before [INSERT 30 DAYS

**AFTER THE DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].**

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-HQ-OLEM-2021-0556, by one of the following methods:

- *Federal eRulemaking Portal:* <https://www.regulations.gov>. Follow the online instructions for submitting comments. Do not submit electronically any information you consider to be Confidential Business Information or other information whose disclosure is restricted by statute.

- *Mail:* U.S. Environmental Protection Agency, EPA Docket Center, OLEM Docket, Mail Code 28221T, 1200 Pennsylvania Avenue NW, Washington, DC 20460.

- *Hand Delivery:* To make special arrangements for hand delivery or delivery of boxed information, please follow the instructions at <https://www.epa.gov/dockets/where-send-comments-epa-dockets>.

Additional instructions on commenting or visiting the docket, along with more information about dockets generally, is available at <https://www.epa.gov/dockets/commenting-epa-dockets>.

**FOR FURTHER INFORMATION CONTACT:** For further information regarding specific aspects of this document, contact Jennifer McLeod, Program Implementation and Information Division, Office of Resource Conservation and Recovery, (703) 308-8459; email address: [mcLeod.jennifer@epa.gov](mailto:mcLeod.jennifer@epa.gov), or Karen Swetland-Johnson, Program Implementation and Information Division, Office of Resource Conservation and Recovery, (703) 308-8421; email address: [swetland-johnson.karen@epa.gov](mailto:swetland-johnson.karen@epa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **I. General Information**

#### *A. Does this action apply to me?*

This proposed rule potentially affects persons that manufacture, process, distribute in commerce, use, or dispose of PCBs. The following list of North American Industrial Classification System (NAICS) codes is not intended to be exhaustive, but rather provides a guide to help readers determine whether this document applies to them. Potentially affected entities may include:

- Utilities: Electric power and light companies, natural gas companies (NAICS code 22);
- Manufacturers: Chemical manufacturers, electroindustry manufacturers, end-users of

electricity, general contractors (NAICS codes 31-33);

- Transportation and Warehousing: Various modes of transportation including air, rail, water, ground, and pipeline (NAICS code 48-49);
- Real Estate: People who rent, lease, or sell commercial property (NAICS code 53);
- Professional, Scientific and Technical Services: Testing laboratories, environmental consulting (NAICS code 54);
- Public Administration: Federal, state, and local agencies (NAICS code 92);
- Waste Management and Remediation Services: PCB waste handlers (e.g., storage facilities, landfills, incinerators), waste treatment and disposal, remediation services, material recovery facilities, waste transporters (NAICS code 562);
- Repair and Maintenance: Repair and maintenance of appliances, machinery and equipment (NAICS code 811);

To determine whether your entity is affected by this action, you should carefully examine the proposed changes to the regulatory text. If you have questions regarding the applicability of this action to a particular entity, consult the person listed under **FOR FURTHER INFORMATION CONTACT**.

*B. What action is the Agency taking?*

EPA proposes to expand the list of extraction and determinative methods in the PCB regulations (40 CFR part 761); amend the performance-based cleanup option for PCB remediation waste under § 761.61(b); remove the provision allowing PCB bulk product waste to be disposed as roadbed material; add more flexible provisions for cleaning up spills that occur during emergency situations, such as during a hurricane or flood; harmonize the general disposal requirements for PCB remediation waste; and make several other amendments to improve the implementation of the regulations, clarify ambiguity, and correct technical errors and outdated information. In addition to the proposed regulatory changes to 40 CFR part 761 included in this notice, EPA has also included a redline mark-up of the proposed changes as a supporting document in the docket, titled *Redline Version of Proposed Revisions to 40 CFR part 761 (PCB Regulations; NPRM)*. This transparency will assist the public in visualizing

what EPA is proposing to change in the regulatory text at 40 CFR part 761, by showing what is proposed to be added to and removed from the current version of the regulatory text.

*C. What is the Agency's authority for taking this action?*

The authority to propose this rule is found in section 6(e)(1) of TSCA. Specifically, section 6(e)(1)(A) gives EPA the authority to promulgate rules regarding the disposal of PCBs (15 U.S.C. 2605(e)(1)(A)).

*D. What are the overall economic impacts of this action?*

EPA estimated the costs and benefits of the proposed rule in an Economic Assessment, which is available in the docket for this action. Overall, EPA estimates that the proposed rule would result in quantifiable annual cost savings of approximately \$13.5 million to \$15.2 million (annualized at a discount rate of seven percent).

*E. What is the scope of this proposed rule?*

This proposed rule addresses several key issues related to implementing the PCB Cleanup and Disposal Program under TSCA, including:

**Expand Available Extraction Methods**

EPA proposes to add the following extraction methods from SW-846, Test Methods for Evaluating Solid Waste, to the PCB regulations in 40 CFR part 761 for use on solid matrices: Method 3541 (Automated Soxhlet Extraction), Method 3545A (Pressurized Fluid Extraction), and Method 3546 (Microwave Extraction). EPA is also proposing to add the following aqueous extraction methods to the PCB regulations: Method 3510C (Separatory Funnel Liquid-Liquid Extraction), Method 3520C (Continuous Liquid-Liquid Extraction), and Method 3535A (Solid-Phase Extraction). The Agency is proposing to incorporate by reference Methods 3541, 3545A, 3546, 3510C, 3520C, and 3535A into § 761.19.

**Remove Ultrasonic Extraction**

EPA proposes to remove SW-846 Method 3550B (Ultrasonic extraction) from the PCB regulations in 40 CFR part 761.

## Add Determinative Methods

EPA proposes to add three determinative methods to the PCB regulations: SW-846 Method 8082A (Polychlorinated Biphenyls (PCBs) By Gas Chromatography); 8275A (Semivolatile Organic Compounds (PAHs And PCBs) In Soils/Sludges And Solid Wastes Using Thermal Extraction/Gas Chromatography/Mass Spectrometry (TE/GC/MS)); and Clean Water Act (CWA) Method 1668C (Chlorinated Biphenyl Congeners in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS).

## Amend the Performance-based Disposal Option under § 761.61(b)

EPA proposes to amend the performance-based disposal option for PCB remediation waste under § 761.61(b) to include provisions for performance-based cleanup such as applicability, cleanup levels, verification sampling, recordkeeping and notification requirements. EPA is also proposing to add RCRA Subtitle C permitted landfills to the list of allowable performance-based disposal options for non-liquid PCB remediation waste.

## Remove Regulatory Provision Allowing Disposal of PCB Bulk Product Waste as Roadbed

EPA proposes to remove the option in § 761.62(d)(2), which allows for disposal of PCB bulk product waste under asphalt as part of a roadbed.

## Add Flexible Provisions for Emergency Situations

EPA proposes to add two provisions to the existing PCB Spill Cleanup Policy in 40 CFR part 761, subpart G, that would allow for more flexible requirements for cleanup of spills caused by and managed in emergency situations, such as hurricane or floods. Additionally, EPA is proposing to add provisions to allow individuals to request a waiver from specific requirements of §§ 761.60, 761.61, 761.62, and 761.65, when necessitated by an emergency situation.

## Harmonize General Disposal Requirements for PCB Remediation Waste

EPA proposes to amend § 761.50(b)(3)(ii) to remove a phrase that was added erroneously in 1998, which could imply that waste with < 50 ppm PCBs that met the definition of PCB remediation waste in § 761.3 was not regulated for disposal.

## Make Changes to Improve Regulatory Implementation

EPA proposes several supplemental amendments to improve implementation of existing requirements, clarify regulatory ambiguity and correct technical errors in the PCB regulations.

More information on each of the above proposed changes can be found in *Section III, Detailed Discussion of the Proposed Rule*.

## **II. Background**

### *A. General Background on Polychlorinated Biphenyls (PCBs) and this Rulemaking*

What are PCBs?

PCBs are a group of man-made organic chemicals known as chlorinated hydrocarbons, which consist of carbon, hydrogen and chlorine atoms. PCBs were manufactured in the United States from 1929 until fabrication was banned in 1979. (As allowed by TSCA, the PCB regulations provide for excluded manufacturing processes, as defined in 40 CFR 761.3, which include inadvertent generation.) The number of chlorine atoms and their location in a PCB molecule determine many of its physical and chemical properties. PCBs have no known taste or smell, and range in consistency from thin, light-colored liquids to yellow or black waxy solids. Due to their non-flammability, chemical stability, high boiling point and electrical insulating properties, PCBs were previously used in hundreds of industrial and commercial applications including: electrical, heat transfer and hydraulic equipment; plasticizers in paints, plastics and rubber products; pigments, dyes and carbonless copy paper; and other industrial applications. The PCBs used in these products were chemical mixtures made up of a variety of individual chlorinated biphenyl components known as congeners. Most commercial PCB mixtures are known in the United States by their industrial trade names, the most common being Aroclor. Please visit: <https://www.epa.gov/pCBS/learn-about-polychlorinated-biphenyls-pCBS> for more information.

PCBs are persistent in the environment and can cause both acute and chronic health effects. Short-term exposure to high concentrations of PCBs can lead to skin conditions such as acne and rashes and may be associated with decreased liver function, neurological effects and gastrointestinal effects. These high levels of exposure are generally rare in the general population. Chronic exposure to lower concentrations of PCBs may also cause health effects, as PCBs can accumulate in people over time. In animal studies, PCBs have been shown to cause effects on the immune, reproductive, nervous, hepatic and endocrine systems. PCBs have also been shown to cause cancer in animals. Some studies in humans provide supportive evidence for some of these health effects. Studies also show that PCBs in pregnant women can affect their children's birth weight, short-term memory and learning. Also, because of potential neurotoxic and endocrine effects, there is concern regarding children's exposures to PCBs.

PCBs are highly persistent in the environment. As such, they are still present in soils and sediments at many locations and may be found at low levels in ambient air and water, even decades after banning them. PCBs can be released into the environment from hazardous waste sites, illegal or improper disposal of industrial wastes and consumer products, leaks from old electrical transformers and capacitors containing PCBs and burning of some wastes in incinerators, among other sources. PCBs bioaccumulate and may be present in foods that people consume, such as fish, meat and dairy products. Dietary consumption of contaminated foods is believed to be an important route of background exposure.

### Laws and Regulations

This proposed rule is issued pursuant to section 6(e) of the Toxic Substances Control Act, 15

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<sup>1</sup> Thomas, Xue, Williams, Jones, and Whitaker. "Polychlorinated Biphenyls (PCBs) in School Buildings: Sources, Environmental Levels, and Exposures"; Office of Research and Development, National Exposure Laboratory; Washington, D.C. September 2012.

<sup>2</sup> ATSDR. Toxicological Profile for Polychlorinated Biphenyls (PCBs); U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry. November 2000.

<sup>3</sup> ATSDR. Addendum to the Toxicological Profile for Polychlorinated Biphenyls; U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry. April 2011.

U.S.C. 2605(e). Section 6(e)(1)(A) gives EPA the authority to promulgate rules regarding the disposal of PCBs (15 U.S.C. 2605(e)(1)(A)). TSCA section 6(e)(2) and (e)(3) generally prohibit the manufacture, processing, distribution in commerce and use (other than totally enclosed use) of PCBs (15 U.S.C. 2605(e)(2) and (e)(3)). TSCA section 6(e)(2)(B) gives EPA the authority to authorize the use of PCBs in other than a totally enclosed manner based on a finding of no unreasonable risk of injury to health or the environment (15 U.S.C. 2605(e)(2)(B)). TSCA section 6(e)(3)(B) provides that any person may petition EPA for an exemption from the prohibition on the manufacture, processing, and distribution in commerce of PCBs (15 U.S.C. 2605(e)(3)(B)). EPA may grant an exemption based on findings that an unreasonable risk of injury to health or the environment will not result, and that the petitioner has made good faith efforts to develop a substitute for PCBs.

The implementing PCB regulations can be found in Title 40 of the Code of Federal Regulations (CFR) in Part 761. For useful interpretations of the regulations as well as answers to frequently asked questions please visit <https://www.epa.gov/pcbs/policy-and-guidance-polychlorinated-biphenyl-pcbs>.

#### Rationale for Updating Portions of the PCB Regulations

Several developments have occurred in recent years to warrant an update to portions of the PCB regulations, including: the emergence of new science, advancement of analytical methods and technology, new information, and repeated requests from the regulated community to address their concerns and areas of confusion.

EPA is thus proposing several revisions to the PCB regulations to better reflect current science and other available new information. This rulemaking is expected to ease regulatory burden and costs on the regulated community and on EPA by providing greater flexibility while maintaining environmental protectiveness in the allowable extraction and determinative methods used to characterize and verify the cleanup of PCB waste. This rulemaking is also expected to ease regulatory burden by improving the implementation of the regulations, clarifying ambiguity and correcting technical errors.

#### *B. Assumptions and Terminology Used in Discussion of Various Methods*

##### Sources of the Methods



There are two important sources of EPA methods related to this rulemaking. The first source is SW-846, also known as *The Test Methods for Evaluating Solid Waste: Physical/Chemical Methods Compendium*, which is EPA’s collection of methods for use in complying with the Resource Conservation and Recovery Act (RCRA). SW-846 is organized into chapters providing guidance on how to use the methods and groups of methods, called “series,” which are organized by topic. The methods change over time as updates are published to keep up with evolving analytical and measurement needs.<sup>4</sup> The second source is the Clean Water Act (CWA) Methods, which are EPA published laboratory methods, or test procedures that are used by industries and municipalities, to analyze the chemical, physical and biological components of wastewater and other environmental samples.<sup>5</sup> Methods for both SW-846 and CWA go through an extensive review and validation process before they are made available.

#### Terminology of the Methods

EPA would like to avoid confusion with the variety of methods discussed, the source of each method, and the numbering of the methods. EPA will use streamlined nomenclature in this preamble to improve its readability. For example, rather than stating, “SW-846, Test Methods for Evaluating Solid Waste, EPA Method 3540C (Soxhlet Extraction),” EPA will only state “Method 3540C”. This terminology applies to all subsequent sections in this preamble. See Table 1 for a comprehensive list of all methods referenced in this document.

**Table 1:** Table of methods discussed in this rulemaking.

Source	Method ID	Publication Year	Method Type	Method Name	Proposed Change
SW-846	Method 3510C	1996	Extraction	Separatory Funnel Liquid-Liquid Extraction	Propose to Add
SW-846	Method 3520C	1996	Extraction	Continuous Liquid-Liquid Extraction	Propose to Add
SW-846	Method	2007	Extraction	Solid-Phase Extraction	Propose to

<sup>4</sup> <https://www.epa.gov/hw-sw846>

<sup>5</sup> <https://www.epa.gov/cwa-methods>

	3535A			(SPE)	Add
SW-846	Method 3500B	2007	Extraction	Organic Extraction and Sample Preparation	Propose to Remove Reference to Method
SW-846	Method 3540C	1996	Extraction	Soxhlet Extraction	Remains in regulations
SW-846	Method 3541	1994	Extraction	Automated Soxhlet Extraction	Propose to Add
SW-846	Method 3545A	2007	Extraction	Pressurized Fluid Extraction	Propose to Add
SW-846	Method 3546	2007	Extraction	Microwave Extraction	Propose to Add
SW-846	Method 3550B	1996	Extraction	Ultrasonic Extraction	Propose to Remove
SW-846	Method 8082	1996	Determinative	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	Remains in regulations
SW-846	Method 8082A	2007	Determinative	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	Propose to Add
SW-846	Method 8275A	1996	Extraction and Determinative	Semivolatile Organic Compounds in Soil/Sludges and Solid Wastes Using Thermal Extraction/Gas Chromatography/Mass Spectrometry (TE/GC/MS)	Propose to Add
CWA	Method 1668C	2010	Extraction and Determinative	Chlorinated Biphenyl Congeners in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	Propose to Add

### III. Detailed Discussion of the Proposed Rule

#### A. Expand Available Extraction Methods for PCBs

##### Background on Extraction Methods for PCBs

Currently, the only extraction methods explicitly allowed in the PCB regulations for solid

matrices are Method 3540C (Soxhlet Extraction), which is commonly referred to as ‘Manual Soxhlet Extraction,’ and Method 3550B (Ultrasonic Extraction). The regulated community has long expressed interest in the availability of extraction methods at cleanup sites beyond those currently allowed under the PCB regulations.<sup>6</sup> The data on Method 3550B indicate that it has the potential to produce unreliable and inconsistent results. For more information on this issue, see *Section III.B. Remove Ultrasonic Extraction (Method 3550B) from the PCB Regulations*. Manual Soxhlet Extraction was invented in the late 1800s and the original Method 3540C was created in 1996. It is a long-standing, effective method for PCBs; however, over time it has slowly been replaced by newer methods in both EPA and commercial laboratories.<sup>7</sup> This transition has caused problems with the availability of Manual Soxhlet Extraction in EPA and commercial laboratories, which could potentially cause delays in getting samples extracted and analyzed in a timely matter. In addition, Manual Soxhlet Extraction takes 16-24 hours (whereas other methods may take only 2-4 hours, or less) to complete the extraction of a limited number of samples, which could result in further delays.

Although the PCB regulations explicitly allow these extraction methods, neither of these methods are applicable to PCB extraction of aqueous samples. Method 8082 is currently the only determinative method listed in the PCB regulations for extraction from aqueous matrices and states that “[a]queous samples may be extracted at neutral pH with methylene chloride using either Method 3510 (separatory funnel), Method 3520 (continuous liquid-liquid extraction), Method 3535A (solid-phase extraction) or other appropriate technique or solvents.”

EPA proposes to add the following extraction methods to the 40 CFR part 761 regulations:

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<sup>6</sup> Allison D. Foley "Consolidated Petition on Behalf of USWAG Members to Use Automated Soxhlet Extraction (Method 3541) in Connection with June 10, 2014 Risk-Based Approvals to Dispose of Polychlorinated Biphenyl (PCB) Remediation Waste"; March 2015.

<sup>7</sup> M.D. Luque de Castro, L.E. Garcia-Ayuso. “Soxhlet extraction of solid materials: an outdated technique with a promising innovative future.” Department of Analytical Chemistry, Faculty of Sciences, University of Cordoba. Cordoba, Spain. March 1998.

Method 3541<sup>8</sup> (Automated Soxhlet Extraction), Method 3545A<sup>9</sup> (Pressurized Fluid Extraction), and Method 3546<sup>10</sup> (Microwave Extraction) for extraction of PCBs from solid matrices; and Method 3510C<sup>11</sup> (Separatory Funnel Liquid-Liquid Extraction), Method 3520C<sup>12</sup> (Continuous Liquid-Liquid Extraction), and Method 3535A<sup>13</sup> (Solid-Phase Extraction) for extraction of PCBs from aqueous matrices. EPA is also proposing to add determinative methods to the PCB regulations at 40 CFR Part 761 (see *Section III.C. Proposed Updates to Determinative Methods for PCBs*). Although not explicitly allowable at this time for determining PCB concentrations for purposes of the PCB disposal and cleanup regulations, these methods are already widely used in both EPA and commercial laboratories for PCB extraction under other cleanup programs, such as cleanups under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and state-led cleanups. These methods are as accurate as and offer several significant benefits over Manual Soxhlet Extraction, including quicker sample processing time (a few hours or less compared to 16-24 hours), less need for physical space for equipment, reduced solvent use and energy savings. Because of these advantages, most EPA and commercial labs already use these Methods for extracting PCBs from samples. EPA finds, based on reasonably available information, that expanding the options for alternative extraction methods in the PCB regulations would help the regulated community investigate, clean up and dispose of PCB waste more quickly, efficiently, and economically, with results that are as accurate as or more accurate than

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<sup>8</sup> U.S. EPA, Method 3541 Automated Soxhlet Extraction. Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division (5303P). Washington, D.C. EPA-820-R-10-004. September 1994.

<sup>9</sup> U.S. EPA, Method 3545A Pressurized Fluid Extraction. Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division (5303P). Washington, D.C. EPA-820-R-10-004. January 1998.

<sup>10</sup> U.S. EPA, Method 3546 Microwave Extraction. Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division (5303P). Washington, D.C. EPA-820-R-10-004. February 2007.

<sup>11</sup> U.S. EPA, Method 3510C Separatory Funnel Liquid-Liquid Extraction. Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division (5303P). Washington, D.C. December 1996.

<sup>12</sup> U.S. EPA, Method 3520C Continuous Liquid-Liquid Extraction. Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division (5303P). Washington, D.C. December 1996.

<sup>13</sup> U.S. EPA, Method 3535A Solid-Phase Extraction. Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division (5303P). Washington, D.C. February 2007.

the results using 3540C. Furthermore, the use of less solvent during the extraction procedure would advance Agency priorities on the use of greener technologies in cleanup and disposal actions.<sup>14</sup>

Therefore, EPA proposes to add several additional extraction methods to the PCB Regulations, which will allow for more flexibility in the allowable extraction methods. See the following section for more information on EPA's proposed extraction methods.

#### Technical Summary of Relevant Extraction Methods

EPA Method 3540C: Soxhlet Extraction (aka Manual Soxhlet Extraction) is currently the primary extraction method used under the PCB regulations. When performing a Manual Soxhlet Extraction, the solid sample is mixed with anhydrous sodium sulfate, placed in an extraction thimble or between two plugs of glass wool, and extracted using an appropriate solvent in a Soxhlet extractor. The extract is then dried, concentrated (if necessary) and exchanged into a solvent compatible with the cleanup or determinative step being employed (if necessary). For certain types of matrices, such as non-liquid manufactured materials, this method may be the most suitable option to ensure effective extraction of PCBs for quantitative analysis.

EPA Method 3550B: Ultrasonic Extraction (UE) is a method currently permissible in the PCB regulations that can be used to extract PCBs from solids, such as soils, sludges and wastes. There are two procedures in the method depending on the expected concentration of organic compounds. Under the low concentration procedure, the sample is mixed with anhydrous sodium sulfate to form a free-flowing powder. The mixture is extracted with solvent three times, using an ultrasonic extractor, which uses pulsing energy to extract the targeted analyte. The extract is separated from the sample by vacuum filtration or centrifugation. The extract is then ready for final concentration, cleanup and/or analysis. Under the medium/high concentration procedure, the sample is mixed with anhydrous sodium sulfate to form a free-flowing powder. The sample is extracted with solvent once, using ultrasonic extraction. A portion of the extract is then collected for cleanup and/or analysis. Because of the limited contact time

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<sup>14</sup> [https://www.epa.gov/sites/production/files/2015-10/documents/oswer\\_greencleanup\\_principles.pdf](https://www.epa.gov/sites/production/files/2015-10/documents/oswer_greencleanup_principles.pdf)

between the solvent and the sample, Ultrasonic Extraction may not be as rigorous as other extraction methods for soils/solids. Therefore, it is critical that the method (including the manufacturer's instructions) be followed exactly, to achieve the maximum extraction efficiency.

EPA is proposing to add EPA Method 3546: Microwave Extraction to the PCB regulations. This method is known for its relatively brief extraction time and low equipment costs. In a microwave extraction, a sample is prepared for extraction by grinding it to a powder and then loading it into the extraction vessel. The appropriate solvent system is added to the vessel, which is then sealed. The extraction vessel containing the sample and solvent system is then heated to the extraction temperature and is extracted for the amount of time recommended by the instrument manufacturer. After the mixture cools, the vessel is opened and the contents are filtered. The solid material is then rinsed multiple times, and the various solvent fractions are combined. Finally, the extract may be concentrated, if necessary, and, as needed, exchanged into a solvent compatible with the cleanup or determinative procedure to be employed.

EPA is also proposing to add EPA Method 3545A: Pressurized Fluid Extraction (PFE) to the PCB Regulations. When performing a pressurized fluid extraction, a sample is prepared for extraction either by air drying the sample, or by mixing the sample with anhydrous sodium sulfate or pelletized diatomaceous earth. The sample is then ground and loaded into an extraction cell. The extraction cell containing the ground sample is then heated to the extraction temperature, pressurized with the appropriate solvent system, and extracted for the period of time recommended by the instrument manufacturer. The solvent is then collected from the heated extraction vessel and allowed to cool. Finally, the extract may be concentrated, if necessary, and, as needed, exchanged into a solvent compatible with the cleanup or determinative step being employed.

EPA Method 3541: Automated Soxhlet Extraction would also become permissible for PCB extraction under this proposed rule. This method shares many similarities with Manual Soxhlet Extraction (EPA Method 3540C); however, it takes less time and solvent per sample. When performing an Automated Soxhlet Extraction, a moist solid sample (e.g., soil/sediment samples) may be air-dried

and ground prior to extraction or chemically dried with anhydrous sodium sulfate. The prepared sample is then extracted using 1:1 acetone: hexane in the automated Soxhlet system.

EPA is proposing to add EPA Method 3510C: Separatory Funnel Liquid-Liquid Extraction to the PCB Regulations. This method describes a procedure for isolating organic compounds from aqueous samples. The method also describes concentration techniques suitable for preparing the extract for the appropriate determinative methods. A measured volume of sample, usually 1 liter, at a specified pH, is serially extracted with methylene chloride using a separatory funnel. The extract is dried, concentrated (if necessary), and, as necessary, exchanged into a solvent compatible with the cleanup or determinative method to be used.

EPA is also proposing to add EPA Method 3520C: Continuous Liquid-Liquid Extraction to the PCB Regulations. This method describes a procedure for isolating organic compounds from aqueous samples. The method also describes concentration techniques suitable for preparing the extract for the appropriate determinative steps. Method 3520 is designed for extraction solvents with greater density than the sample. A measured volume of sample, usually 1 liter, is placed into a continuous liquid-liquid extractor, adjusted, if necessary, to a specific pH, and extracted with organic solvent for 18 - 24 hours. The extract is dried, concentrated (if necessary), and, as necessary, exchanged into a solvent compatible with the cleanup or determinative method being employed.

EPA is also proposing to add EPA Method 3535A: Solid-Phase Extraction (SPE) to the PCB Regulations. This is a procedure for isolating target organic analytes from aqueous samples using solid-phase extraction (SPE) media. It describes conditions for extracting a variety of organic compounds from aqueous matrices that include groundwater, wastewater, and Toxicity Characteristic Leaching Procedure (TCLP) leachates. The extraction procedures are specific to the analytes of interest and vary by group of analytes and type of extraction media.

What is EPA Proposing for Allowable Extraction Methods for PCBs?

As stated above, EPA proposes to add the following extraction methods to the 40 CFR part 761 regulations: Method 3541 (Automated Soxhlet Extraction), Method 3545A (Pressurized Fluid

Extraction), and Method 3546 (Microwave Extraction) for extraction of PCBs from solid matrices; and Method 3510C (Separatory Funnel Liquid-Liquid Extraction), Method 3520C (Continuous Liquid-Liquid Extraction), and Method 3535A (Solid-Phase Extraction) for extraction of PCBs from aqueous matrices. EPA is also proposing to add Clean Water Act (CWA) Method 1668C to the PCB regulations. Since it includes both extraction and determinative steps, the discussion of this method is found in *Section III.C. Proposed Updates to Determinative Methods for PCBs*. EPA is proposing to allow these methods for use, as applicable, under the following subparts of 40 CFR part 761: Subpart D - Storage and Disposal; Subpart K - PCB Waste Disposal Records and Reports; Subpart M - Determining a PCB Concentration for Purposes of Abandonment or Disposal of Natural Gas Pipeline: Selecting Sites, Collecting Surface Samples, and Analyzing Standard PCB Wipe Samples; Subpart N - Cleanup Site Characterization Sampling for PCB Remediation Waste in Accordance with § 761.61(a)(2); Subpart O - Sampling to Verify Completion of Self-Implementing Cleanup and On-Site Disposal of Bulk PCB Remediation Waste and Porous Surfaces in Accordance with § 761.61(a)(6); Subpart P—Sampling Non-Porous Surfaces for Measurement-Based Use, Reuse, and On-site or Off-Site Disposal Under § 761.61(a)(6) and Determination Under § 761.79(b)(3); Subpart R - Sampling Non-Liquid, Non-Metal PCB Bulk Product Waste for Purposes of Characterization for PCB Disposal in Accordance With § 761.62, and Sampling PCB Remediation Waste Destined for Off-Site Disposal, in Accordance With § 761.61; and Subpart T - Comparison Study for Validating a New Performance-Based Decontamination Solvent under § 761.79(d)(4). These proposed modifications to the 40 CFR part 761 regulations can be found in the regulatory language section towards the end of this notice; the specific sections of the 40 CFR part 761 regulations with these proposed changes include: §§ 761.61(a)(5)(i)(B)(2)(iv), 761.253, 761.272, 761.292, 761.358, and 761.395.

EPA's proposal to add Methods 3541, 3545A and 3546 to the PCB regulations for extraction of PCBs from solid matrices is based on several factors including: applicability of the method to PCBs, frequency of use in EPA and commercial laboratories and existing data supporting the effectiveness of the methods.



EPA proposes to add Method 3541 (Automated Soxhlet Extraction) to the PCB regulations because this method has been validated and approved by EPA to be included in the SW-846 compendium of test methods for use with PCBs. A study titled *Intra-Laboratory Recovery Data for the PCB Extraction Procedure* was performed for the validation of Method 3541, which confirms its effectiveness on soils, sediments, sludges and waste solids containing levels of 1 to 50 ppm (parts per million) PCBs.<sup>15</sup> As part of this study, multi-laboratory accuracy and precision data were obtained for PCBs in soil. Specifically, eight laboratories spiked Aroclors 1254 and 1260 into three portions of 10 g of soil on three non-consecutive days followed by immediate extraction using Method 3541. Six of the laboratories spiked each Aroclor at 5 and 50 ppm and two laboratories spiked each Aroclor at 50 and 500 ppm. The data indicated that Method 3541 is an effective method for extracting PCBs, and these data are listed in Table 8 of Method 8082A, and support EPA's decision to propose including Method 3541 in the PCB regulations.<sup>16</sup>

EPA also proposes to add Method 3545A (Pressurized Fluid Extraction) to the PCB regulations because this method has been validated and approved by EPA to be included in the SW-846 compendium of test methods for use with PCBs. A study titled, *Single Laboratory Method Validation Report. Extraction of TCL/PPL (Target Compound List/Priority Pollutant List) OPPs, Chlorinated Herbicides and PCBs using Accelerated Solvent Extraction (ASE)*, was performed for the validation of Method 3545A, which confirms its effectiveness on solid matrices containing 1 to 1400 ppm PCBs.<sup>17</sup> Extractions of contaminated soil, river sediment, sewage sludge and oyster tissue were performed, and PCBs were spiked on Fuller's earth (kaolin clay) to determine recovery levels. The overall average recovery of PCBs from all matrices demonstrated that Method 3545A is equivalent in performance to

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<sup>15</sup> Stewart, J. "Intra-Laboratory Recovery Data for the PCB Extraction Procedure"; Oak Ridge National Laboratory, Oak Ridge, TN, 37831-6138; October 1981.

<sup>16</sup> U.S. EPA, Method 8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography. Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division (5303P). Washington, D.C. EPA-820-R-10-004. February 2007.

<sup>17</sup> B. Richter, Ezzell, J., and Felix, D., "Single Laboratory Method Validation Report. Extraction of TCL/PPL (Target Compound List/Priority Pollutant List) OPPs, Chlorinated Herbicides and PCBs using Accelerated Solvent Extraction (ASE)." Document 101124, Dionex Corporation, December 2, 1994).

Method 3540C. In addition, a comparison study titled, *Chemical Analysis of Non-Liquid PCBs in Shipboard Solid Materials: Extraction Methods Comparison*, was done on electrical cables that were previously found to contain elevated levels of PCBs.<sup>18</sup> The results of the study indicated that there are generally no significant differences for extractions on shipboard solids using either Method 3540C or Method 3545A. These methods provided comparable results, which provides additional support for EPA's decision to propose including Method 3545A in the PCB regulations. Another study titled, *PCBs in Older Buildings: Measuring PCB Levels in Caulk and Window Glazing Materials in Older Buildings*, was performed on 36 samples of caulk and glazing materials.<sup>19</sup> The average percent recovery values for Aroclor 1254 in the caulk material samples in this study indicate how efficient Method 3545A is for extracting high PCB concentrations from caulk and glazing materials. The results of these three studies support EPA's decision to propose including Method 3545A in the PCB regulations.

EPA also proposes to add Method 3546 (Microwave Extraction) to the PCB regulations because this method has been validated and approved by EPA to be included in the SW-846 compendium of test methods for use with PCBs. A study titled, *Final Evaluation of US EPA Method 3546: Microwave Extraction, a Microwave Assisted Process (MAP™) Method for the Extraction of Contaminants Under Closed-Vessel Conditions*, was performed for the validation of this method, showing that it is effective for soils, clays, sediments, sludges and solid wastes containing PCBs at levels between 1 to 5,000 ppb (µg/kg).<sup>20</sup> Data were obtained for PCBs using sediment, natural soils, glass fiber and sand samples in spiked matrices. PCB concentrations varied from 0.2 to 10 ppm, and sample extracts were analyzed by Method 8082A. The recovery data are included in Tables 18-20 of Method 8082A. In addition, a study titled, *Comparison of Soxhlet Extraction, Microwave-Assisted Extraction And Ultrasonic Extraction For*

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<sup>18</sup>George, R. PhD, Johnston, R. PhD "Chemical Analysis of Non-Liquid PCBs in Shipboard Solid Materials: Extraction Methods Comparison." Marine Environmental Support Office-NW, Environmental Sciences Branch, January 31, 2008).

<sup>19</sup>Osemwengie, L. and Morgan, J., "PCBs in Older Buildings: Measuring PCB Levels in Caulk and Window Glazing Materials in Older Buildings." U.S. Environmental Protection Agency, National Exposure Research Laboratory, Exposure Methods and Measurement Division, January 31, 2019).

<sup>20</sup> K. Li, J. M. R. Bélanger, M. P. Llompart, R. D. Turpin, R. Singhvi, and J. R. J. Paré, "Final Evaluation of U.S. EPA Method 3546: Microwave Extraction, a Microwave Assisted Process (MAP™) Method for the Extraction of Contaminants Under Closed-Vessel Conditions," *Soil and Sediment Contamination*, 10 (4), 375-386 (2001).

*The Determination Of PCBs Congeners In Spiked Soils By Transformer Oil (Askarel)*, focused on the variation of the extraction quantities for each PCB congener (29 PCBs) with three different extraction methods (Manual Soxhlet Extraction, Microwave Extraction, and Ultrasonic Extraction).<sup>21</sup> The comparison made between the three methods showed that Microwave Extraction is a suitable alternative to Manual Soxhlet Extraction for the extraction of PCBs in soils, but Ultrasonic Extraction did not give a good recovery. Specifically, the recovery efficiency obtained from Ultrasonic Extraction and Microwave Extraction were (50.67% - 78.27 %) on the first extraction and (41.15 - 54.40 %) on the second extraction, respectively (see *Section III.B. Proposed Removal or Update of Ultrasonic Extraction (Method 3550B) from the PCB Regulations*). Lastly, a study titled, *Extraction of Organic Pollutants from Solid Samples Using Microwave Energy*, used Method 3546 to determine the PCB concentration in two marine sediments, soil, freshly spiked topsoil, spiked and aged topsoil, and four soils from a Superfund site.<sup>22</sup> The results for the performance of the method on four PCB Aroclors are presented in Table 3 of the study. The recoveries of Aroclor 1016 and 1260 were obtained by Microwave Assisted Extraction (MAE) and were comparable to or higher than those achieved by the conventional extraction techniques (Manual Soxhlet Extraction and Ultrasonic Extraction). The method validation study and additional studies support EPA's decision to propose including Method 3546 (Microwave Extraction) in the PCB regulations.

The extraction effectiveness of Method 3540C (Manual Soxhlet Extraction), Method 3541 (Automated Soxhlet Extraction), Method 3545A (Pressurized Fluid Extraction), Method 3546 (Microwave Extraction) and Method 3550B (Ultrasonic Extraction) on soil containing PCBs was compared in: *Comprehensive comparison of classic Soxhlet extraction with Soxtec extraction, ultrasonication extraction, supercritical fluid extraction, microwave assisted extraction and accelerated*

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<sup>21</sup> Halfadji, Ahmed; Touabet Abdelkrim; Badjah-Hadj-Amed, Ahmed-Yacine. *Comparison of Soxhlet Extraction, Microwave-Assisted Extraction and Ultrasonic Extraction for the Determination of PCBs Congeners in Spiked Soils by Transformer Oil (Askarel)*. International Journal of Advances in Engineering & Technology. Vol. 5, Issue 2, pp. 63-75. Jan. 2013.

<sup>22</sup> Viorica Lopez-Avila, Richard Young, Janet Benedicto, Pauline Ho, and Robert Kim, "Extraction of Organic Pollutants from Solid Samples Using Microwave Energy," Midwest Research Institute, California (1995).

*solvent extraction for the determination of polychlorinated biphenyls in soil.*<sup>23</sup> An overall comparison among the recoveries obtained for the different extraction techniques is shown in Figure 3 of the study. The study concluded that most of the extraction techniques can provide accurate results (including Methods 3541, 3545A, and 3546) when the extraction conditions and procedures are appropriately chosen. In conclusion, EPA finds, based on reasonably available information, that Methods 3541, 3545A, and 3546 are technically sound methods for the extraction of PCBs from solid matrices and provide extraction results that are as accurate as or more accurate than the results using the Manual Soxhlet Extraction method (Method 3540C).

For extraction of PCBs from aqueous matrices, EPA proposes to add Method 3510C (Separatory Funnel Liquid-Liquid Extraction), Method 3520C (Continuous Liquid-Liquid Extraction), and Method 3535A (Solid-Phase Extraction (SPE)) to the PCB regulations to reduce confusion about whether these methods (which are currently listed in Method 8082, the only determinative method currently listed in the PCB regulations) can be used or if an approval is required to use these methods. EPA is proposing to add these methods to the PCB regulations because they have been validated and approved by EPA to be included in the SW-846: Compendium of Test Methods and because they are included in Method 8082 and 8082A as allowable extraction methods for aqueous matrices. EPA finds, based on reasonably available information, that Methods 3510C, 3520C and 3535A are technically sound methods for the extraction of PCBs from aqueous matrices and is requesting comment on the proposed addition of these methods to the PCB regulations under the following sections: §§ 761.61(a)(5)(i)(B)(2)(iv), 761.272, 761.292, 761.358, and 761.395. Note that these aqueous methods would not be added to § 761.253, as it pertains to wipe sampling of surfaces and is not applicable to aqueous materials.

EPA is requesting comment on its proposal to add Method 3541, Method 3545A, and Method 3546 to the PCB regulations for extraction of PCBs from solid matrices. Additionally, EPA is requesting

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<sup>23</sup> Sune Sparring, Søren Bøwadt, Bo Svensmark, Erland Bjorklund. *Comprehensive comparison of classic Soxhlet extraction with Soxtec extraction, ultrasonication extraction, supercritical fluid extraction, microwave assisted extraction and accelerated solvent extraction for the determination of polychlorinated biphenyls in soil.* Journal of Chromatography. July 2005.

comment on adding Method 3510C, Method 3520C and Method 3535A to the PCB regulations for extraction of PCBs from aqueous matrices. EPA also requests the submission of any additional data regarding the use of these methods on samples containing PCBs.

#### *B. Remove Ultrasonic Extraction (Method 3550B) from the PCB Regulations*

##### Background on this Issue

EPA Method 3550B (Ultrasonic Extraction) is a method currently permissible in the PCB regulations that can be used to extract PCBs from solids, such as soils, sludges and wastes. EPA Method 3550C (Ultrasonic Extraction) is an updated version of Method 3550B and is not currently permissible in the PCB Regulations. For more information on the technical aspects of ultrasonic extraction, see *Section III.A.2. Technical Summary of Relevant Extraction Methods*.

The text in EPA Method 3550B and Method 3550C includes caveats that ultrasonic extraction may not be as rigorous as other extraction methods and highlights the importance of following the method explicitly. By comparison, this issue is generally not mentioned or highlighted in other SW-846 methods.<sup>24</sup> Specifically, Method 3550C further emphasizes, beyond what is stated in Method 3550B, the crucial importance of conducting the method properly, in line with the manufacturer's instructions regarding operational settings.

Previous studies done on the extraction efficiency of ultrasonic extraction methods have provided inconsistent results. Some studies have yielded results from ultrasonic extraction that were equivalent to the results from other extraction methods and, in others, ultrasonic extraction had a lower extraction efficiency.<sup>25,26</sup> For example, in a large study, 20 governmental laboratories and 153 accredited

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<sup>24</sup> Section 1.4 of Method 3550C states, "Because of the limited contact time between the solvent and the sample, ultrasonic extraction may not be as rigorous as other extraction methods for soils/solids. Therefore, it is **critical** that the method (including the manufacturer's instructions) be followed explicitly, in order to achieve the maximum extraction efficiency. See Sec. 11.0 for a discussion of the critical aspects of the extraction procedure. **Consult the manufacturer's instructions regarding specific operational settings.**"

<sup>25</sup> Halfadji, Ahmed; Touabet Abdelkrim; Badjah-Hadj-Amed, Ahmed-Yacine. *Comparison of Soxhlet Extraction, Microwave-Assisted Extraction and Ultrasonic Extraction for the Determination of PCBS Congeners in Spiked Soils by Transformer Oil (Askarel)*. International Journal of Advances in Engineering & Technology. Vol. 5, Issue 2, pp. 63-75. Jan. 2013.

<sup>26</sup> McMillin, Richard; Spencer, David; Gregg, Diane; and Nguyen, Neal. *Comparison of Five Soil Extraction Techniques for Pesticide and Semivolatile Analysis*. Waste Testing and Quality Assurance Conference. July 1999.

laboratories were provided proficiency samples to extract using either ultrasonic extraction or Manual Soxhlet Extraction and the results were compared. This study showed that “results from laboratories using Soxhlet extraction were significantly more accurate than those obtained using ultrasonic extraction, especially at higher concentrations.”<sup>27,28</sup> The study goes on to state that ultrasonic extraction required “more expertise and care for the method to yield accurate results.” Furthermore, this concern was amplified for difficult to extract media, such as caulk and clay materials, where PCBs are sorbed to the material such that they are very difficult to extract for analysis. Another study tested the effectiveness of several extraction methods on soil containing PCBs, including: Method 3540C, Method 3541, Method 3545A, Method 3546 and Method 3550B.<sup>29</sup> This study found that using n-hexane/acetone with appropriate choices of extraction time and temperature gave nearly identical data for all methods tested in the study. The study concluded that all extraction techniques tested (including Method 3550B) are capable of providing accurate results when the extraction conditions and procedures are appropriately chosen.

#### What is EPA Proposing on this Issue?

EPA proposes to remove EPA Method 3550B (Ultrasonic Extraction) from the PCB Regulations. EPA is proposing not to include ultrasonic extraction methods in the PCB regulations because they do not consistently produce reliable results and have a higher potential than other methods to be conducted improperly. The PCB regulatory sections which would be affected by this proposal include §§ 761.61(a)(5)(i)(B)(2)(iv), 761.253, 761.272, 761.292, 761.358, and 761.395.

Previous studies arrived at different conclusions regarding the effectiveness of ultrasonic extraction. The level of uncertainty raised by these studies causes concerns, especially for difficult to

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<sup>27</sup> Erickson, M.D. *Analytical Chemistry of PCBs*. CRC Press, Inc. 1997.

<sup>28</sup> Kimbrough, D.E., R. Chin and J. Wakakuwa. “Industry-Wide Performance in a Pilot Performance Evaluation Sample Program for Hazardous Materials Laboratories. 1. Precision and Accuracy of Polychlorinated Biphenyls. *Environmental Science Technology*. Vol. 26, Issue 11, pp. 2101-2104. 1992.

<sup>29</sup> Sune Sparring, Søren Bøwadt, Bo Svensmark, Erland Bjorklund. *Comprehensive comparison of classic Soxhlet extraction with Soxtec extraction, ultrasonication extraction, supercritical fluid extraction, microwave assisted extraction and accelerated solvent extraction for the determination of polychlorinated biphenyls in soil*. *Journal of Chromatography*. July 2005.

extract media, such as caulk and clay materials, where PCBs are sorbed to the material such that they are very difficult to extract for analysis. Compounding this, the importance of following the method explicitly is uniquely highlighted in the ultrasonic extraction methods, suggesting that the potential of conducting ultrasonic extraction improperly is higher relative to other methods found in SW-846. Therefore, EPA finds, based on reasonably available information, that ultrasonic extraction is not a reliably effective extraction method and is proposing to remove it from the PCB regulations.

EPA also believes that removing ultrasonic extraction from the PCB regulations would not result in increased burden as many laboratories do not solely use ultrasonic extraction for PCB samples for several reasons, including difficulty in meeting quality assurance/quality control (QA/QC) requirements, problems with low recoveries depending on the sample matrix, and the fact that Method 3550B may be labor intensive relative to other commonly used methods, such as Method 3545A. In addition, EPA believes that if ultrasonic extraction were removed from the PCB regulations, laboratories would likely use other extraction methods with associated equipment they likely already have available. See the Economic Assessment for a full analysis of the costs and cost savings.

EPA requests comment on the impacts of removing ultrasonic extraction from the PCB regulations due to the conflicting data and the challenge of conducting this method appropriately to obtain reliable results. Any additional information or data regarding the efficiency of Methods 3550B and 3550C would help EPA better evaluate them for inclusion in the PCBs regulations.

### *C. Add Determinative Methods for the PCB Regulations*

#### *Background on this Issue*

Currently, the PCB regulations list Method 8082 (Polychlorinated Biphenyls (PCBs) by Gas Chromatography) as the only determinative method for PCB samples.<sup>30</sup> The only exception in the PCB regulations is at § 761.60(g)(1)(iii) where it states that “[a]ny gas chromatographic method that is

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<sup>30</sup> U.S. EPA, Method 8082 Polychlorinated Biphenyls (PCBs) By Gas Chromatography. Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division (5303P). Washington, D.C. December 1996.

appropriate for the material being analyzed may be used” and then suggests several optional determinative methods.<sup>31</sup> However, this section in the PCB regulations is restricted to samples of mineral oil dielectric fluid (MODEF) and waste oil (see §§ 761.60(g)(1) and 761.60(g)(2)). Currently, all other samples must be analyzed using EPA Method 8082, and any alternative determinative method would require EPA approval. In addition, updated (i.e., Method 8082A) or modified versions of 8082 may not be used, since they are not explicitly stated in the PCB regulations. While EPA has not received any significant concerns from the regulated community regarding the availability of determinative methods, EPA has investigated additional determinative methods to include in this rulemaking to provide a greater number of technically sound options for the regulated community. Additional determinative methods may reduce the administrative burden on the Agency by reducing the number of approvals processed for alternative methods.

Additionally, the previously mentioned methods referenced in § 761.60(g)(1)(iii) are outdated and EPA believes that they should be updated to the most current versions. By updating these method references, EPA is not requiring that only the new specifically referenced methods be used, as § 761.60(g)(1)(iii) provides that “[a]ny gas chromatographic method that is appropriate for the material being analyzed may be used.” EPA believes this update will avoid confusion by referencing the most up-to-date methods while still allowing flexibility in this regulatory provision.

#### What is EPA Proposing on this Issue?

EPA proposes to add three determinative methods to the PCB regulations: Method 8082A (Polychlorinated Biphenyls (PCBs) By Gas Chromatography), Method 8275A (Semivolatile Organic Compounds (PAHs And PCBs) In Soils/Sludges and Solid Wastes Using Thermal Extraction/Gas Chromatography/Mass Spectrometry (TE/GC/MS)), and Method 1668C (Chlorinated Biphenyl

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<sup>31</sup> The regulatory text at § 761.60(g)(1)(iii) lists the following methods: “... EPA Method 608, “Organochlorine Pesticides and PCBs” at 40 CFR part 136, Appendix A;” EPA Method 8082, “Polychlorinated Biphenyls (PCBs) by Capillary Column Gas Chromatography” of SW-846, “OSW Test Methods for Evaluating Solid Waste,” which is available from NTIS; and ASTM Standard D-4059, “Standard Test Method for Analysis of Polychlorinated Biphenyls in Insulating Liquids by Gas Chromatography,” which is available from ASTM.”



Congeners in Water, Soil, Sediment, Biosolids and Tissue by HRGC/HRMS).<sup>32,33,34</sup> The PCB regulatory sections affected by this change include §§ 761.61(a)(5)(i)(B)(2)(iv), 761.253, 761.272, 761.292, 761.358, and 761.395.

As mentioned in the preceding section, EPA also proposes to update the outdated referenced methods in § 761.60(g)(1)(iii). EPA Method 608 would be updated to EPA Method 608.3, and EPA Method 8082 would be updated to EPA Method 8082A.<sup>35</sup>

EPA proposes to add Method 8082A to the PCB regulations because Method 8082A has been validated and included in the SW-846 compendium of test methods and Method 8082A is only a minor revision to the method (Method 8082) currently allowed in the PCB regulations. Method 8082A includes updated references/validation studies, formatting changes and other various minor changes, but overall is similar to Method 8082. Method 8082A can determine the concentrations of PCBs as Aroclors or as individual PCB congeners in extracts from solid, tissue, and aqueous matrices, using open-tubular, capillary columns with electron capture detectors (ECD) or electrolytic conductivity detectors (ELCD). If appropriate sample extraction and cleanup procedures are employed, Method 8082A can work for other matrices, such as oils and wipe samples. Note that Method 8082A would not replace Method 8082, and that both methods would be available in the PCB regulations.

EPA also proposes to add Method 8275A (Semivolatile Organic Compounds (PAHs and PCBs) In Soils/Sludges and Solid Wastes Using Thermal Extraction/Gas Chromatography/Mass Spectrometry (TE/GC/MS)) to the PCB regulations for several reasons, including the fact that this method has been

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<sup>32</sup> U.S. EPA, Method 8082A Polychlorinated Biphenyls (PCBs) By Gas Chromatography. Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division (5303P). Washington, D.C. February 2007.

<sup>33</sup> U.S. EPA, Method 8275A Semivolatile Organic Compounds (PAHs And PCBs) In Soils/Sludges and Solid Wastes Using Thermal Extraction/Gas Chromatography /Mass Spectrometry (TE/GC/MS). Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division (5303P). Washington, D.C. December 1996.

<sup>34</sup> U.S. EPA, Method 1668 Chlorinated Biphenyl Congeners in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS. Office of Land and Emergency Management, Office of Water, Office of Science and Technology, Engineering and Analysis Division (4303T). Washington, D.C. EPA-820-R-10-005. April 2010.

<sup>35</sup> U.S. EPA, Method 608.3 Organochlorine Pesticides and PCBs by GC/HSD. Office of Water, Office of Science and Technology, Engineering and Analytical Division (4303T). Washington, D.C. EPA-820-R-10-004. December 2016.

validated and approved by EPA to be included in the SW-846 compendium of test methods. Method 8275A is a thermal extraction capillary GC/MS procedure for the rapid quantitative determination of targeted PCBs and PAHs in soils, sludges and solid wastes. The validation data presented in the method demonstrates that several PCB congeners can be reliably analyzed using this method.<sup>36</sup> This method is different from the other methods because PCBs are extracted, without the use of any solvent, by a process of heating a stream of inert gas to a temperature that is adequate to desorb the PCBs out of the sample. The desorbed PCBs are then fed directly into an analyzer (e.g., GC/MS) to determine the PCB concentration. A separate extraction method may not be required if using Method 8275A and, since no solvent is used, there is less waste produced and fewer cleanup steps involved. EPA finds, based on reasonably available information, that Method 8275A is appropriate for inclusion in the PCB regulations and since this method does not require solvent, it would advance Agency priorities on the use of greener technologies.<sup>37</sup>

EPA also proposes to add Method 1668C, Chlorinated Biphenyl Congeners in Water, Soil, Sediment, Biosolids and Tissue by HRGC/HRMS, developed by EPA's Office of Water for use under the Clean Water Act (CWA), to the PCB regulations. This method determines PCB congeners in environmental samples by isotope dilution and internal standard high-resolution gas chromatography/high-resolution mass spectrometry (HRGC/HRMS) for use in wastewater, surface water, soil, sediment, biosolids and tissue matrices. Method 1668C is different relative to many methods in SW-846, in that it is a comprehensive method where cleanup, extraction and determinative steps are all within Method 1668C. In SW-846, these steps are usually separated into multiple different methods. Additionally, Method 1668C allows for certain modifications to be made without EPA review provided that all performance criteria are met as described within the method. EPA finds, based on reasonably available information, that Method 1668C is appropriate for inclusion in the PCB regulations because

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<sup>36</sup> Worden, R., "Method 8275A: Quantitative Addendum For SW-846 Method 8275", Research report to the U.S. Environmental Protection Agency; Ruska Laboratories, Inc., Houston, TX, 1993.

<sup>37</sup> [https://www.epa.gov/sites/production/files/2015-10/documents/oswer\\_greencleanup\\_principles.pdf](https://www.epa.gov/sites/production/files/2015-10/documents/oswer_greencleanup_principles.pdf)

the validation data presented in the method demonstrate that several PCB congeners can be reliably analyzed using this method.<sup>38</sup>

EPA considered other determinative methods but chose against proposing those which were judged to be too broad, too prescriptive, or not robust enough to accurately determine the PCB concentration. For example, EPA Method 608.3 is prescribed for analyzing only Aroclors, which is why it will only be allowed under § 761.60(g)(1)(iii) as this section relates to chemical analysis of mineral oil dielectric fluid. This method was a concern for PCB remediation waste because spilled PCBs become ‘weathered’ over time. The weathering process is due to repeated wetting and drying cycles, which causes the PCBs to adsorb to the material and degrade into congeners that are different from when the PCBs were manufactured as Aroclors. As a result, the PCB concentration may not be accurately determined by a method that only analyzes for Aroclors. Another example is Method 8270E, which contains a limitation that states, “[i]n most cases, this method is not appropriate for the quantitation of multicomponent analytes (e.g., polychlorinated biphenyls (PCBs) as Aroclors, technical toxaphene, chlordane, etc.) because of limited sensitivity for these analytes or potential for measurement bias using gas chromatograph/mass spectrometer (GC/MS) technology.”<sup>39</sup>

Other methods considered but not included in today’s proposal were very general and were designed for ‘semivolatile’ compounds rather than specifically for PCB analysis. After reviewing these methods, EPA found that the validation studies did not include PCBs and thus EPA is unable to determine the effectiveness of these methods for PCB samples. Method 680 was also considered but this method has not been maintained, reviewed, or updated regularly, like those found in the SW-846 compendium.<sup>40</sup> As a result, this method is over 30 years old and its reliability is unclear. Although EPA

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<sup>38</sup> U.S. EPA, Method 1668A Interlaboratory Validation Study Report. Office of Water, Office of Science and Technology, Engineering and Analytical Division (4303T). Washington, D.C. EPA-820-R-10-004. March 2010.

<sup>39</sup> U.S. EPA, Method 8270E Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry. (GC/MS). Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery Waste Management Division (5303P). Washington, D.C. June 2018.

<sup>40</sup> U.S. EPA, Method 680 Determination of Pesticides and PCBs in Water and Soil/Sediment by Gas Chromatography/Mass Spectrometry (GC/MS). Office of Research and Development. Cincinnati, OH. November 1985.

is not proposing Method 608.3 (except for use in the chemical analysis of mineral oil dielectric fluids under § 761.60(g)(1)(iii)), Method 8270E, or Method 680, EPA notes that a person may either conduct a Subpart Q comparison study or submit an appropriate application (i.e., §§ 761.61(c), 761.62(c) or 761.79(h)) requesting to use or modify a determinative method for their project.

EPA is seeking comment on its proposal to add three determinative methods (Method 8082A, Method 1668C, and Method 8275A) to the PCB regulations. EPA also requests any additional information that may supplement or refute the existing support for EPA's findings for this proposal.

#### *D. Revise Performance-based Disposal under § 761.61(b)*

##### Background on the Issue

Currently, there are three options for addressing PCB remediation waste, listed in § 761.61 under paragraphs (a), (b) and (c). Section 761.61(b) (entitled “performance-based disposal”) prescribes disposal methods for liquid and non-liquid PCB remediation waste but does not explicitly require or refer to cleanup requirements or cleanup levels in the regulations. Specifically, section 761.61(b) simply states that any person disposing of liquid (§ 761.61(b)(1)) and non-liquid (§ 761.61(b)(2)) PCB remediation waste shall do so by one of the TSCA-approved disposal methods listed therein. Section 761.61(b) does not currently include provisions for site cleanup. The other PCB remediation waste options in § 761.61 are “self-implementing on-site cleanup and disposal of PCB remediation waste” in § 761.61(a) and “risk-based disposal approval” in § 761.61(c). Section 761.61(a) describes in detail the requirements for notification, site characterization, cleanup levels, cleanup verification, disposal options and more. Section 761.61(c) allows the site owner to apply for a risk-based approval to “sample, cleanup, or dispose of PCB remediation waste in a manner other than prescribed in paragraphs (a) or (b).” The language of section 761.61(b) thus does not conform to the other two options in that the provision does not state the removal requirements of PCB remediation waste at any specified concentration nor does it provide for procedures to demonstrate that on-site cleanup is complete.

Prior to this rulemaking, EPA had stated in guidance related to § 761.61(b) that to be completely unregulated for disposal off-site without an approval from EPA, waste must contain < 1 ppm PCBs, and

that concentration must not be the result of dilution during remediation (i.e., by mixing with clean soil during excavation).<sup>41</sup> Similarly, if someone were to use § 761.61(b) for disposal of waste, but leave materials on-site > 1 ppm, they would still have TSCA obligations for those remaining materials.<sup>42</sup>

While EPA's regulatory text and preamble statements refer to §§ 761.61(a), (b), and (c) as three alternatives for PCB cleanup and disposal, the absence of cleanup provisions, such as cleanup levels and sampling requirements, in § 761.61(b) could make it challenging for site owners to know when EPA would agree that on-site cleanup is complete and the site is authorized for use under § 761.30(u).<sup>43</sup> <sup>44</sup> Clear regulatory requirements may be warranted as EPA estimates that 50 to 60 million kg of PCB remediation waste are generated at 430 to 460 sites cleaned up under § 761.61(b) each year.<sup>45</sup>

#### EPA Proposal on this Issue

EPA proposes to amend § 761.61(b) (performance-based disposal) to add performance-based cleanup standards, while maintaining this option as one which does not require prior EPA approval and thus remains an expedient option for those entities removing PCB remediation waste from the site. Specifically, EPA is proposing to amend § 761.61(b) to include explicit conditions for on-site remediation and cleanup of PCB remediation waste. This specification includes: (1) establishing cleanup levels for sites remediated under § 761.61(b) performance-based cleanup; (2) limiting applicability of this option to sites that are not near sensitive populations or environments; (3) verification sampling; (4) recordkeeping requirements; (5) post-cleanup notification; and (6) allowing for disposal of PCB remediation waste in RCRA Subtitle C permitted landfills. After fulfilling the conditions of performance-based cleanup and disposal, the site would then be authorized for use under § 761.30(u).

While the proposed conditions for performance-based cleanup will require additional effort on the part of site owners, the proposed conditions will also provide site owners confidence that they are

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<sup>41</sup> PCB Q&A Manual. June 2014. Pg. 91. <https://www.epa.gov/sites/production/files/2015-08/documents/qacombed.pdf>

<sup>42</sup> <https://www.epa.gov/pcbs/managing-remediation-waste-polychlorinated-biphenyls-pcbs-cleanups>

<sup>43</sup> The preamble to the 1994 proposed PCB Megarule (59 FR 62796)

<sup>44</sup> 40 CFR 761.61, introductory paragraph

<sup>45</sup> Manifest data from 2018 and 2019 was analyzed to estimate the volume of waste and number of sites cleaned up under § 761.61(b).

satisfying the regulatory requirements. As always, failure to properly characterize PCBs on site is not a defense for noncompliant cleanup and disposal. Liability for ensuring compliance with § 761.61(b), performance-based cleanup and disposal, lies with the responsible party. In addition, while the revisions to § 761.61(b) are designed to be fully self-implementing, if the remediating party has questions as to whether its site qualifies to be cleaned up under § 761.61(b)(1)(i) of this provision, it would be in the remediating party's best interest, from a compliance assurance perspective, to contact the appropriate EPA Regional PCB Coordinator prior to commencing the cleanup and disposal activities. See the EPA PCB website for a list of the EPA Regional PCB Coordinators [www.epa.gov/pcbs/program-contacts](http://www.epa.gov/pcbs/program-contacts).

First, EPA proposes to establish cleanup levels for sites remediated under a § 761.61(b) performance-based cleanup. Currently, the regulations do not reference a specific cleanup level. The 1994 preamble provides that § 761.61(b) “could be used where all PCB remediation waste would be removed from the environment, or where remediation levels were established elsewhere in these rules.”<sup>46</sup> In guidance, EPA has interpreted “all PCB remediation waste” to mean PCB remediation waste at > 1 ppm PCBs.<sup>47</sup>

Identifying a numerical cleanup level in regulations will help responsible parties understand the circumstances under which they could expect to have no further cleanup responsibility at the site under § 761.61(b). EPA is therefore proposing to incorporate the following cleanup levels directly into § 761.61(b): ≤ 1 ppm for bulk PCB remediation waste and porous surfaces; the concentrations specified in § 761.79(b)(1) and (2) for liquids; and the concentrations specified in § 761.79(b)(3) for nonporous surfaces. EPA notes that the cleanup levels for liquids and nonporous surfaces are already performance-based decontamination standards, so materials decontaminated to those levels are authorized for use under § 761.79 and § 761.30(u). Additionally, the cleanup level for bulk remediation waste and porous surfaces is already used in § 761.61(a) as the most stringent cleanup level (with certain exceptions

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<sup>46</sup> The preamble to the 1994 proposed PCB Megarule (59 FR 62796)

<sup>47</sup> Managing Remediation Waste From Polychlorinated Biphenyls (PCBs) Cleanups <https://www.epa.gov/pcbs/managing-remediation-waste-polychlorinated-biphenyls-pcbs-cleanups>

accommodated in the proposal as described below), corresponding to the cleanup level for a high occupancy area without further conditions. See proposed § 761.61(b)(1)(ii).

Second, EPA proposes an applicability provision be included in the § 761.61(b) performance-based cleanup to exclude the provision's use at sites with specific characteristics that merit additional consideration by EPA. In the 1998 Megarule, EPA established that certain types of sensitive environments and populations would not be well-served by the cleanup levels prescribed in § 761.61(a)(4) and therefore excluded these locations from the applicability of § 761.61(a). See § 761.61(a)(1). In addition, the regulation identifies certain types of sites that, while subject to § 761.61(a), may call for more stringent cleanup levels. See § 761.61(a)(4)(vi). Since the proposed performance-based cleanup would not require consultation with EPA, EPA proposes a list of objective characteristics that would exclude a site from using performance-based cleanup standards, which largely mirrors the applicability section in § 761.61(a)(1) and the characteristics in §§ 761.61(a)(4)(vi), 761.120(a)(2), and 761.120(d)(2)(iv) of sites that may require more stringent cleanup levels or site-specific determinations. Additionally, the proposed criteria in § 761.61(b)(1)(A) exclude sites where PCB remediation waste is found within the 100-year floodplain, which would allow EPA to give additional consideration to the protection of waterways by handling the cleanup through § 761.61(a) and/or § 761.61(c). Responsible parties should be able to independently evaluate their site and determine whether performance-based cleanup would be applicable. EPA's regional PCB Coordinators are available to provide site-specific guidance, but such consultation should not be needed to apply the regulations to a site.<sup>48</sup> See proposed § 761.61(b)(1)(i)(A). In the event that a responsible party is precluded from using § 761.61(b) under EPA's proposed applicability criteria, they can choose to conduct their cleanup under one of the other two options, i.e., §§ 761.61(a) or 761.61(c).

Third, EPA proposes to require verification sampling in accordance with the PCB regulations to ensure that the proposed cleanup levels have been met. Currently, EPA expects that verification

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<sup>48</sup> Contact information for PCB regional coordinators. <https://www.epa.gov/pcbs/program-contacts>

sampling is already conducted by responsible parties using § 761.61(b) for site cleanup to ensure that PCB remediation waste is removed. Under this proposal, EPA is specifying that verification sampling be conducted in accordance with Subpart O for bulk PCB remediation waste and porous surfaces, Subpart P or § 761.79(b)(3)(i) for nonporous surfaces, and § 761.269 for liquid remediation waste. EPA is also proposing, similar to the cleanup option under § 761.61(a), that the concentration in every required sample analysis result must be below the specified cleanup levels for the cleanup to be complete. See proposed § 761.61(b)(1)(iii).

Fourth, EPA is also proposing to incorporate explicit recordkeeping requirements into performance-based cleanup. Currently, responsible parties using § 761.61(b) are subject to the applicable recordkeeping requirements in § 761.180(a) for PCB remediation waste shipped off-site. Under the proposed provisions for performance-based cleanup, responsible parties would need to follow the recordkeeping requirements in the PCB Spill Cleanup Policy at § 761.125(c)(5) in addition to any applicable requirements in § 761.180(a). These requirements are also required for self-implementing cleanups conducted under § 761.61(a) (see § 761.61(a)(9)). Nine specific items would be documented in the records, and records would be required to be maintained for five years. While the proposed requirements would present a small additional burden to responsible parties, EPA believes that recordkeeping would benefit responsible parties by allowing them to demonstrate to regulators, prospective property purchasers, or insurers that site cleanup was completed according to the conditions in § 761.61(b). See the Economic Assessment for a full analysis of the costs. See proposed § 761.61(b)(1)(iv).

Fifth, EPA proposes to incorporate a post-cleanup notification into the proposed performance-based cleanup provisions. Under performance-based cleanup and disposal, sites would be remediated without EPA involvement. While EPA understands the value of a site remediation option that is self-directed and expedient, it is also reasonable to expect that regulators need a way to evaluate performance to ensure the conditions, such as cleanup levels, were met. EPA is proposing to require responsible parties to send a notification to EPA within 14 days of the final shipment of waste offsite for disposal.



The proposed notification would require information about the site and point of contact, the disposal facility and waste shipments, and a summary of the required records. The notification would also include a certification, as defined in § 761.3, from the responsible party. This basic notification would only include information that EPA is proposing be kept under the recordkeeping provision, and thus should not present an additional significant burden on the responsible party. See the Economic Assessment and Information Collection Request for specific estimates. EPA, state, tribal and local environmental agencies could then use the proposed notification as way to maintain oversight.

Sixth, EPA proposes to add a RCRA Subtitle C landfill disposal option for non-liquid PCB remediation waste under § 761.61(b). RCRA Subtitle C landfills are already allowed to be used for the disposal of bulk PCB remediation waste under § 761.61(a)(5)(i)(B)(2)(iii) and for PCB bulk product waste under § 761.62(a)(3). EPA has previously stated in the preamble to the final 1998 PCB Disposal Amendments, “EPA added RCRA Subtitle C landfills as a disposal option for PCB bulk product waste because they are designed and operated in the same manner as TSCA chemical waste landfills.”<sup>49</sup> EPA has not received any information in the intervening two decades that would suggest otherwise. Since EPA has already determined that RCRA Subtitle C landfills are protective for bulk product waste, which typically contain very high concentrations of PCBs, the Agency finds its proposal to extend the use of RCRA Subtitle C landfills for non-liquid PCB remediation waste under § 761.61(b) to be reasonable. By adding these landfills to the list of allowable disposal options for certain PCB remediation wastes, EPA anticipates that the transportation costs will decrease, as the distance to the closest allowable disposal option diminishes. Furthermore, the disposal cost per ton of non-liquid, nonhazardous PCB waste is generally lower at RCRA Subtitle C landfills than it is at TSCA chemical waste landfills. See the Economic Assessment for more information on the estimated costs. EPA is requesting comment on the proposal to add RCRA Subtitle C landfills to the list of allowable disposal options for non-liquid PCB

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<sup>49</sup> pg 35410: Megarule Preamble. 1998 “In response to comments seeking consistency with PCB remediation waste disposal, EPA added RCRA Subtitle C landfills as a disposal option for PCB bulk product waste because they are designed and operated in the same manner as TSCA chemical waste landfills (see § 761.62(a)(3) of the regulatory text). <https://www.govinfo.gov/content/pkg/FR-1998-06-29/pdf/98-17048.pdf>

remediation waste under § 761.61(b).

Finally, EPA proposes a change to § 761.125(a)(2) of the PCB Spill Cleanup Policy to ensure that the addition of RCRA Subtitle C landfills to § 761.61(b) does not affect the Spill Cleanup Policy. Currently, the PCB Spill Cleanup Policy calls for disposal of cleanup debris and non-liquid materials in accordance with the provisions of Subpart D. The only Subpart D disposal options currently available for PCB remediation waste managed under the Spill Cleanup Policy are the options under § 761.61(b). Under the current language of the Spill Cleanup Policy, the proposed addition of RCRA Subtitle C landfills to § 761.61(b) would have the effect of adding those landfills as an option for disposal under the Spill Cleanup Policy. Expanding the disposal options available under the Spill Cleanup Policy is not an objective of this rulemaking, and is outside the scope of this rulemaking. Therefore, EPA is proposing to revise the language in the Policy to specify that only disposal facilities with TSCA approvals issued under Subpart D of the PCB regulations may be used for disposal of cleanup debris and materials generated under the Spill Cleanup Policy. This change to the Spill Cleanup Policy is not substantive; rather, it maintains the disposal options currently available under the Policy.

EPA notes that the above proposed changes would not impact a responsible party's ability<sup>50</sup> to pair disposal under § 761.61(b) with on-site cleanup under § 761.61(a), proposed § 761.61(b), § 761.61(c), or § 761.77 (state-led cleanup under a coordinated approval). The proposed regulatory text explicitly preserves the ability to use § 761.61(b) solely as a disposal provision. See proposed introductory paragraph in § 761.61(b).

EPA requests comment on its proposed changes to § 761.61(b), as well as how often it is currently being used in comparison to EPA's estimate. Additionally, EPA is requesting comment on the option of requiring a pre-cleanup notification in § 761.61(b), in addition to the proposed changes described above. The pre-cleanup notification would include basic information such as name, contact information, site location and proximity to areas identified in § 761.61(b)(1)(i), initial site

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<sup>50</sup> 1994 proposed PCB Disposal Amendments (59 FR 62796)

characterization, and planned remedial action(s). EPA sees value in receiving such a notification in terms of providing EPA with an opportunity to conduct compliance assistance, increase public transparency, and minimize the need for the use of enforcement tools after the cleanup and disposal are complete. EPA also recognizes that pre-cleanup notification would pose additional reporting burden and that such burden must be balanced with the self-implementing nature of § 761.61(b). If a pre-cleanup notification were incorporated into § 761.61(b), the responsible party would not be required to wait for a response or receive approval from EPA and could begin the planned remedial action(s) immediately. EPA requests comment on the impacts of a pre-cleanup notification and whether or not to include the notification in the final rulemaking.

#### *E. Remove Regulatory Provision Allowing Disposal of PCB Bulk Product Waste as Roadbed*

##### Background on the Issue

EPA established a provision allowing for disposal of PCB bulk product waste as roadbed in 1998 (63 FR 35412 (June 29, 1998)). In the preamble for that rule, EPA stated that “[b]ecause these disposal options have been restricted to materials that do not leach and because other potential routes of exposure have been controlled, EPA has concluded that the risk from these disposal options is the practical equivalent of disposal in a landfill as required in § 761.62(b)(1), and therefore that this risk is not unreasonable.” Since 1998, the assumption that PCBs do not migrate from bulk product waste has been proven incorrect in many scenarios.<sup>51</sup> For example, studies show that caulk containing PCBs degrades, releasing PCBs to the air, stormwater, and adjacent soil.<sup>52</sup> Considering these studies, EPA questions whether potential leaching of PCBs from bulk product waste used as roadbed could lead to environmental releases of PCBs and potential exposures to humans and wildlife. As a result, EPA no longer has a basis to support the determination of no unreasonable risk of injury to health or the

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<sup>51</sup> Eero Priha, Sannamari Hellman, Jaana Sorvari, PCB contamination from polysulphide sealants in residential areas—exposure and risk assessment, *Chemosphere*, Volume 59, Issue 4, 2005, Pages 537-543. <https://www.sciencedirect.com/science/article/pii/S0045653505001074>

<sup>52</sup> Luca Rossi, Luiz de Alencastro, Thomas Kupper, Joseph Tarradellas, Urban stormwater contamination by polychlorinated biphenyls (PCBs) and its importance for urban water systems in Switzerland, *Science of The Total Environment*, Volume 322, Issues 1–3, 2004, Pages 179-189. <https://www.sciencedirect.com/science/article/pii/S0048969703003619>

environment that the Agency made in 1998. EPA further believes that this disposal option is not widely used.

What is EPA proposing on this issue?

EPA proposes to remove the option currently provided for in § 761.62(d)(2) to dispose of PCB bulk product waste under asphalt as roadbed because the Agency cannot, at this time, determine the practice presents no unreasonable risk of injury to health or the environment. EPA further believes that this disposal option is not widely used and thus removing it from the regulations is not likely to present significant burden to the regulated community. EPA is seeking comment on the proposal to remove this option from the regulations. In particular, EPA is interested in any concrete information about the use of PCB bulk product waste as roadbed, especially reports of specific placements indicating that the practice is more widely used than EPA believes. EPA is also interested in any studies regarding the potential for the release of PCBs from the roadbed.

#### *F. Add Flexible Provisions for Emergency Situations*

##### *Background on the Issue*

The TSCA PCB Spill Cleanup Policy was first published on April 2, 1987 (52 FR 10688), codified at part 761, subpart G, and applies only to certain releases of PCBs occurring after May 4, 1987. The TSCA PCB Spill Cleanup Policy requires cleanup of PCBs to different levels depending upon spill location, the potential for exposure to residual PCBs remaining after cleanup, the concentration of PCBs initially spilled (high concentration or low), and the nature and size of the population potentially at risk of exposure to residual PCBs. Thus, the Policy applies the most stringent requirements for PCB spill cleanup to non-restricted access areas where there is a greater potential for human exposures to spilled PCBs. The Policy applies less stringent requirements for cleanup of PCB spills in restricted access areas where the nature and degree of human contact present a lower potential for significant exposure. Finally, even less stringent requirements apply to restricted access areas where there is little potential for human exposures (59 FR 62793).

When the spilled material contains 50 to 500 ppm PCBs and the total quantity of material spilled

involves less than 1 lb of PCBs, the Policy allows for cleanup in accordance with procedural performance requirements (i.e., double wash/rinse for solid surfaces and removal of visible traces plus a 1-foot lateral boundary for soil and other ground media provided that the minimum depth of excavation is 10 inches) rather than requiring sampling to verify that numerical cleanup standards have been met. When the spilled material has greater than 500 ppm PCBs or the total quantity of material spilled involves more than 1 lb of PCBs by weight, the Policy provides numerical cleanup standards based on the accessibility of the area and the potential for human exposure. Post-cleanup sampling is required to verify that the cleanup standards have been met. The Policy requires reporting to EPA within 24 hours for spills that directly contaminate sensitive areas, such as drinking water supplies or grazing lands, or where a spill exceeds 10 pounds of PCBs by weight. See § 761.125(a)(1) for details.

EPA may allow less stringent or alternative requirements based upon site-specific considerations (§ 761.120(a)(4)). EPA has used this provision to issue storm-specific guidance in Regions 4 and 6 for Hurricanes Katrina (2005)<sup>53</sup>, Harvey (2017)<sup>54</sup>, Irma (2017)<sup>55</sup>, Florence (2018)<sup>56</sup>, Michael (2018)<sup>57</sup>, Dorian (2019)<sup>58,59</sup> and Tropical Storm Barry (2019).<sup>60,61</sup> Generally, EPA extended the time frame for notification and allowed spills to be managed based on the as-found concentration for spills directly caused by the emergency situation.

EPA recognizes that issuing the guidance on a case-by-case basis can create some inefficiencies. First, since disasters can develop without forewarning, they can put pressure on EPA to develop the guidance quickly so that it may be distributed to the regulated community in time for facilities to use it. Also, the fast-paced nature of the response to such events means that entities that could use the guidance

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<sup>53</sup> Letter from Jesse Baskerville to Mary Davis, Nov 9, 2005. Guidance for Addressing Spills from Electrical Equipment [damaged by Hurricane Rita or Katrina].

<sup>54</sup> Correspondence from James Sales, EPA to Mary Davis. Aug 29, 2017. PCB Disaster Debris Cleanup Guidance.

<sup>55</sup> Memo from Alan Farmer to Barnes Johnson. Sept 8, 2017. EPA Region 4 Issuance of Disaster Waste Guidance.

<sup>56</sup> Memo from Susan Hansen to Barnes Johnson. Sept 13, 2018. EPA Region 4 Issuance of Disaster Waste Guidance.

<sup>57</sup> Memo from Susan Hansen to Barnes Johnson. Oct 10, 2018. EPA Region 4 Issuance of Disaster Waste Guidance.

<sup>58</sup> Memo from John Armstead to Barnes Johnson. Sept 4, 2019. EPA Region 3 Issuance of Disaster Waste Guidance.

<sup>59</sup> Memo from Carol J. Monell to Barnes Johnson. Sept 3, 2019. EPA Region 4 Issuance of Disaster Waste Guidance.

<sup>60</sup> Memo from Ronnie Crossland to Barnes Johnson. July 11, 2019. EPA Region 6 Issuance of Disaster Waste Guidance.

<sup>61</sup> Memo from Carol J. Monell to Barnes Johnson. July 18, 2019. EPA Region 4 Issuance of Disaster Waste Guidance.

may not become aware that it was issued in time to use it. Finally, due to uncertainty regarding whether a guidance document will be issued, it is often challenging for regulated facilities to include the flexibilities offered in the EPA guidance into their disaster preparation protocols. EPA received comments from industry requesting a more standardized set of flexibilities, citing several of these reasons.

#### What is EPA Proposing on this Issue?

EPA proposes two independent changes to make the PCB regulatory requirements more practical during emergency situations. First, EPA is proposing that two additional flexibilities for spills caused by emergency situations be added to the PCB Spill Cleanup Policy in Subpart G. Second, EPA is proposing to create an option to apply for a waiver from various cleanup, storage, and disposal requirements for releases caused by emergency situations, when meeting those requirements as stated in the regulations would be impracticable. EPA is looking for comment on both changes and may finalize either option or both options. EPA is also proposing to establish a definition of an “emergency situation” to clarify the applicability of the proposed changes.

##### a. Definition of “Emergency Situation”

EPA proposes to add identical definitions of “emergency situation” to §§ 761.3 and 761.123. Specifically, EPA proposes to define an emergency situation as adverse conditions caused by manmade or natural incidents that threaten lives, property, or public health and safety and require prompt responsive action from the local, state, tribal, territorial, or federal government. Furthermore, these adverse conditions must result in either: (1) a declaration by either the President of the United States or governor of the affected state of a natural disaster or emergency; or, (2) an incident funded under the Federal Emergency Management Agency (FEMA) via a Stafford Act disaster declaration or emergency declaration. Examples of emergency situations may include civil emergencies or adverse natural conditions, such as hurricanes, earthquakes, or tornados. EPA is proposing this definition because it is sufficiently broad to capture a wide range of emergencies that would be likely to significantly impact the cleanup and disposal of PCB waste. At the same time, the definition is contingent upon a declaration of

emergency from an established authority, which are generally made in an objective and timely manner. EPA is seeking comment on the proposed definition of an “emergency situation.” In particular, EPA would like to know if there is a corresponding tribal authority able to declare a state of emergency that should be included in the definition.

b. Additional Flexibilities under the Spill Cleanup Policy for Spills Caused by Emergency Situations

In this rulemaking, EPA proposes to expand the existing flexibilities in the Spill Cleanup Policy in Subpart G to be available in all emergency situations, rather than on a case-by-case basis. First, EPA proposes to allow the responsible party to clean up a spill caused by an emergency situation (which would be defined in 40 CFR 761.123, as discussed above) based on the as-found PCB concentration when the source concentration cannot readily be determined, as is common in emergency situations. Specifically, EPA is proposing to allow responsible parties to use the as-found concentration when determining whether the spill can be managed under §§ 761.125(b) or 761.125(c) for actions taken directly in response to spills caused by emergency situations. To this end, EPA proposes to add “except where authorized in § 761.120(c)” to the definition of “spill” to accommodate the proposed flexibility to manage waste at the as-found concentration. EPA believes these proposed changes would avoid delays associated with searches for the source of the spill during or immediately following an emergency situation, where the search is likely to be time-consuming and unsuccessful, thereby expediting cleanups and reducing any potential exposure more quickly.

Secondly, EPA proposes to add flexibility to the timeframe for completing notification under the Spill Cleanup Policy. Generally, the Spill Cleanup Policy specifies that notification be made within 24 hours after the responsible party was notified or became aware of the spill, see § 761.125(a)(1). Under EPA’s proposed changes, when the Policy is used for cleanup activities undertaken directly in response to spills caused by emergency situations, as would be defined in § 761.123, the policy would extend the timeframe for reporting to seven days after the adverse conditions that prevented communication have ended. Often in emergencies, communication networks are stretched thin and responsible parties may

need extra time to notify the required entities.<sup>62</sup> This proposed change would only pertain to reporting required under § 761.125(a)(1) that is directly impacted by the adverse conditions. There is no need to provide for flexibility as to the timeframe for cleanup completion in emergency situations because the Spill Cleanup Policy already incorporates this flexibility under §§ 761.125(b)(2) and 761.125(c)(1)(vi).

EPA believes that the proposed flexibilities would not present an unreasonable risk of injury to health or the environment under the defined emergency situations but rather would result in a net benefit in protection of health and the environment, given that they allow those conducting the spill response to assess and dispose of waste more quickly, and prioritize time-sensitive remedial actions.

c. Waiver from Various Sampling, Extraction, Analysis, Cleanup, Storage, and Disposal Requirements in Emergency Situations

EPA proposes to create an option to apply for a waiver from various PCB waste management requirements when necessitated by emergency situations. Responsible parties would be able to request a waiver from the provisions of §§ 761.60, 761.61, 761.62, and 761.65, which provide requirements for sampling, extraction, analysis, cleanup, storage, and disposal of all types of regulated PCB wastes.

Cleanup and disposal activities often cannot be initiated promptly in emergency situations such as hurricanes, due to necessary emergency response actions taking place. EPA recognizes that spills caused by an emergency situation may not be discovered or be able to be cleaned up until after the emergency ends or until after the initial emergency response. EPA regularly negotiates and implements special arrangements during emergency situations on a case-by-case basis, which can delay implementation of remedial actions. EPA is proposing to modify the PCB regulations to allow the person managing the cleanup and/or disposal of PCB waste caused by an emergency situation to request waivers from applicable PCB sampling, extraction, analysis, cleanup, storage, disposal and other regulatory requirements when there is an emergency situation and the existing regulatory requirements (e.g., timeframes, sampling protocols) are impracticable due to the nature of the emergency situation.

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<sup>62</sup> Planning for Natural Disaster Debris. EPA. April 2019. p. 66 [https://www.epa.gov/sites/production/files/2019-05/documents/final\\_pndd\\_guidance\\_0.pdf](https://www.epa.gov/sites/production/files/2019-05/documents/final_pndd_guidance_0.pdf)



Due to the varied nature of the emergency situations that would be covered by this waiver option, EPA is proposing to allow requests that would modify specific requirements from a broad swath of the PCB cleanup and disposal regulations. Requests would need to be submitted to EPA within seven days of discovery of the PCB waste. Under the proposed waiver provisions, EPA would individually evaluate each request and would only approve those that provide sufficient information to justify modifying select requirements upon a determination that the modifications would not present an unreasonable risk of injury to health or the environment. Successful waiver requests must identify the specific requirements to be waived or modified, the adverse conditions caused by the emergency situation, why fulfillment of those specific requirements would be impracticable and the proposed method of managing the PCB waste in lieu of the waived requirements. EPA expects most waivers to be temporary with a specified end-date, requiring the recipient of the waiver to meet full regulatory requirements after the emergency conditions no longer impede the ability to comply. For example, the waiver recipient can perform immediate cleanup without fully verifying that cleanup levels have been met; however, once the emergency conditions are over, the recipient would need to determine whether cleanup levels have been met, and perform additional cleanup, if needed. Similarly, EPA intends that the disposal options for a given waste will rarely, if ever, be modified under the waiver option, as the final disposition of the waste is, by nature, permanent and would therefore outlast the adverse conditions. EPA is including disposal requirements in the scope of the waiver option to accommodate rare or extenuating circumstances, for example, the disposal of mixed or partially characterized waste streams, where waste stream segregation or full characterization is not practicable. Therefore, EPA anticipates that impacts to communities near sites where this provision is exercised would be limited in the short term and as protective in the long term. See proposed § 761.66.

The proposed option allows a person to request a waiver by sending site information and a sampling, cleanup, and/or disposal plan that describes the requested deviation from the generally applicable regulatory requirements to the relevant EPA Regional Administrator. The EPA Regional Administrator would review the request and determine whether compliance with the regulatory

requirements from which a waiver is sought is impracticable and whether the action approved under the waiver would not pose an unreasonable risk of injury to health or the environment. The EPA Regional Administrator could grant or deny such a waiver request or may grant the request with changes or conditions beyond those described in the waiver request, such as design standards, marking, or time limits, and would communicate those conditions to the requestor. EPA is considering posting approved waivers publicly on the EPA website to promote transparency and awareness of the use of the waiver option in the local community. EPA is requesting comment on the proposed waiver option, particularly comments on ensuring that the waiver option would be used effectively in real-world emergency situations without presenting an unreasonable risk of injury to health or the environment. EPA is also requesting comment on posting approved waivers online, from both the public's and the requestor's perspectives.

Independent of EPA's proposed additions above, EPA notes that § 761.61 currently "does not prohibit any person from implementing temporary emergency measures to prevent, treat, or contain further releases or mitigate migration to the environment of PCBs or PCB remediation waste." This means that immediate measures may be taken to contain PCBs during an emergency situation prior to receiving approval from the EPA Regional Administrator as described in § 761.66(b). Such examples might include excavating visibly contaminated soil near storm drains or removing and storing leaking electrical equipment that contains PCB oil before the remaining oil is released to the environment.

#### *G. Harmonize General Disposal Requirements for PCB Remediation Waste*

##### **Background on this Issue**

In the 1998 PCB Megarule (63 FR 35384), EPA promulgated both the definition of PCB remediation waste in § 761.3 and a guide to the cleanup and disposal obligations for PCB remediation waste in § 761.50(b)(3). At the time of the 1998 Megarule, § 761.50(b)(3) failed to account for the fact that disposal of PCBs < 500 ppm was not regulated between April 18, 1978, (the effective date of the Disposal and Marking Rule, which set the 500 ppm threshold) and July 2, 1979 (the effective date of the PCB Ban Rule, which replaced the 500 ppm level with 50 ppm). A technical amendment to correct this

discrepancy was issued in 1999 (64 FR 33755). The preamble text addressed changes made to § 761.50(b)(3)(i), which was amended accordingly. Section 761.50(b)(3)(ii) was also amended, presumably to correct the same discrepancy for the time between April 18, 1978 and July 2, 1979. However, the phrase “at as-found concentrations  $\geq$  50 ppm” was added to § 761.50(b)(3)(ii) unnecessarily. This addition was apparently an error; there is no justification in the preamble for the change, and it could be read to cut against the apparent intent to better align § 761.50(b)(3) with the definition of PCB remediation waste and the general direction in § 761.50(b)(3) that PCB remediation waste “is regulated for cleanup and disposal in accordance with § 761.61.”

In keeping with the regulatory text overall, preamble and guidance statements, and interactions with the regulated community, EPA does not interpret the “as found” language in § 761.50(b)(3)(ii) as limiting the cleanup and disposal obligations for PCB remediation waste created by releases that occurred on or after the dates referenced in that clause, where the as-found PCB concentration is  $<$  50 ppm. Rather, EPA maintains that all materials that fit the definition of PCB remediation waste in § 761.3 – including materials which are currently at any volume or concentration where the original source was  $\geq$  500 ppm PCBs beginning on April 18, 1978, or  $\geq$  50 ppm PCBs beginning on July 2, 1979 – are regulated for cleanup and disposal under § 761.61. The introductory language to § 761.50(b)(3) provides, without exception, that “PCB remediation waste. . . is regulated for cleanup and disposal in accordance with § 761.61.” EPA has published guidance affirming that PCB remediation waste, even if  $<$  50 ppm, is regulated under § 761.61.<sup>63</sup> EPA has also issued numerous risk-based disposal approvals in the past five years that apply only to  $<$  50 ppm PCB remediation waste.<sup>64</sup>

In EPA’s view, the function of § 761.50(b)(3)(ii) is to clarify that PCB remediation waste created by releases that occurred on or after the dates referenced in that clause can be managed either in accordance with the PCB Spill Cleanup Policy if it meets the criteria established in the Policy, as

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<sup>63</sup> PCB Q&A Manual. June 2014. Pg. 49 Q.3 <https://www.epa.gov/sites/production/files/2015-08/documents/qacombined.pdf>

<sup>64</sup> Nationwide Risk-based PCB Remediation Waste Disposal Approvals. <https://www.epa.gov/pcbs/nationwide-risk-based-pcb-remediation-waste-disposal-approvals>

provided in § 761.50(b)(3)(ii)(A); or in accordance with § 761.61, as provided in § 761.50(b)(3)(ii)(B) and the introductory text to § 761.50(b)(3). This intention is reflected in the 1998 Megarule preamble, which states: “With regard to sites containing PCB remediation wastes generated on or after April 18, 1978, owners or operators of those sites now have two choices: they may clean up the wastes in accordance with the new § 761.61, or, if applicable, they may cleanup the wastes in accordance with EPA’s Spill Cleanup Policy, part 761, subpart G.”<sup>65</sup>. (In contrast, the older PCB remediation waste addressed under § 761.50(b)(3)(i) is not eligible for management under the Spill Cleanup Policy.) Thus, as EPA interprets § 761.50(b)(3)(ii), the effect of adding the “as-found” limitation to the provision was to suggest that PCB remediation waste created by releases that occurred on or after the dates referenced in that clause, where the as-found PCB concentration is < 50 ppm, is not eligible for management under the Spill Cleanup Policy, but only under § 761.61 as provided in the introductory text. EPA did not intend to so limit the Policy, which applies to the cleanup of certain spills resulting from the release of materials containing PCBs  $\geq$  50 ppm but is not dependent on the as-found concentrations of the materials contaminated by such spills.

#### What is EPA Proposing on this Issue?

EPA proposes to change the language in § 761.50(b)(3)(ii) by removing the phrase “at as found concentrations  $\geq$  50 ppm.” This proposed change would avoid potential confusion over the meaning of § 761.50(b)(3)(ii) and make clear, consistent with the regulatory text and guidance, that all PCB remediation waste is subject to § 761.61, and that all qualifying PCB remediation waste can be managed under the Spill Cleanup Policy regardless of its as-found concentration. Since this regulatory change is in line with current EPA policy, guidance, and practice, EPA estimates no net economic impacts from this change. EPA is requesting comment on this proposed change. See proposed § 761.50(b)(3)(ii).

#### *H. Make Changes to Improve Regulatory Implementation*

EPA proposes several supplemental amendments to improve implementation of existing

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<sup>65</sup> Megarule Preamble 63 FR 35402.

requirements, clarify regulatory ambiguity, and correct technical errors in the PCB regulations. EPA requests comment on each proposed change listed below.

#### Medium Density Plastics as Non-Porous Surfaces

The definition of “non-porous surface” in § 761.3 includes several examples, including high-density plastics. EPA is proposing to modify this definition to include medium-density plastics as an example of a non-porous surface. In December 2018, EPA issued an interpretive letter to the American Gas Association which found that medium- and high-density polyethylene used in natural gas distribution piping meet the definition of a “non-porous surface” under § 761.3.<sup>66</sup> EPA found that the study titled, *Assessment of Polychlorinated Biphenyls (PCBs) in Polyethylene (PE) Gas Distribution Piping*, conducted by NYSEARCH and National Grid, demonstrated that the amount of PCB absorption into medium- and high-density polyethylene pipe was minimal, and penetration of PCBs beyond the immediate surface was limited.<sup>67</sup> EPA is taking comment on whether the relevant properties of medium-density polyethylene are representative of medium-density plastics generally. See proposed § 761.3.

#### Temporary Storage in Containers at the Site of Generation

The PCB regulations permit the storage of bulk PCB remediation waste in piles at the site of generation for up to 180 days under § 761.65(c)(9). In response to requests from generators, EPA is proposing to allow the use of non-leaking, covered containers under the same provision. Waste stored in containers would have to meet all of the same criteria as waste stored in piles, and thus would not incur additional risk. See proposed § 761.65(c)(9).

#### Language Modifications for Financial Assurance Instruments

The PCB regulations at § 761.65(g) currently require commercial storers of PCB waste to establish financial assurance for closure of PCB storage facilities by choosing from financial assurance mechanisms in the RCRA regulations under 40 CFR part 264. Part 264 includes prescribed language

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<sup>66</sup> Letter from Barnes Johnson to Pamela Lacey. Dec 14, 2018. <https://www.epa.gov/pcbs/epas-response-letter-aga-regarding-mdpe-and-hdpe-non-porous-surface>

<sup>67</sup> JANA on behalf of NYSEARCH NGA. Oct 19, 2018. *Assessment of Polychlorinated Biphenyls (PCBs) in Polyethylene (PE) Gas Distribution Piping*. Revision 2.

that must be included in each type of financial instrument. Some variation from the RCRA instrument wording may be necessary for the purposes of effectuating the financial assurance requirements under TSCA. EPA is proposing to allow the Regional Administrator (RA) the flexibility to modify the language required in financial assurance instruments for the purposes of implementation under TSCA. These proposed changes would allow the RA to request modification to the terms of those instruments to account for the fact that they are being used to fulfill a financial assurance obligation under TSCA; for example, changes to the instrument wording so that references to RCRA may be replaced with references to TSCA, or changes to the instruments to better comport with the legal authorities under, and applicable to, TSCA. The proposed changes must be made throughout § 761.65(g), once for each of the financial instruments. See proposed §§ 761.65(g)(1), 761.65(g)(1)(iv), 761.65(g)(2), 761.65(g)(3)(i), 761.65(g)(4)(i), 761.65(g)(5), 761.65(g)(6), and 761.65(g)(7).

#### Remove Manifest Tracking Numbers from Annual Reports

EPA proposes to remove the provision at § 761.180(b)(3)(ii) requiring owners or operators of PCB disposal facilities or commercial storage facilities to record, as part of their logs, lists of manifest tracking numbers (MTNs) of signed PCB manifests either received by or generated at the facility for purposes of annual reporting. As of June 30, 2018, receiving facilities must submit final, signed manifests to EPA's hazardous waste electronic manifest (e-Manifest) system. Since PCB manifests can now be obtained from the e-Manifest system, EPA no longer needs this information to be submitted as part of the annual reporting requirement. In place of the aforementioned requirement, EPA would mark § 761.180(b)(3)(ii) as "[Reserved]." See proposed § 761.180(b)(3)(ii).

#### Mandatory Form for Annual Reports

EPA proposes to modify how the annual report information is submitted to the Agency. While § 761.180(b)(3) describes the information EPA requires in the annual report, it does not specify a format. This lack of clarity has led to confusion on the part of both EPA and the regulated entities. EPA is proposing to require a standard form be used for the submission of annual reports. Use of the form would standardize the format and improve the data quality, allowing EPA to process the reports in less

time. The form will also reduce reporting burden on some members of the regulated community who submit much more than the required information, such as facilities that send copies of every manifest instead of every manifest tracking number. Furthermore, the instructions for the form would clarify EPA's expectations; for example, facilities should report "zero" in all categories for which they did not manage PCB waste in that calendar year. At present, many facilities omit categories, making it unclear as to whether this is an oversight or a determination that the categories do not pertain to them.

#### PCB Waste Categories on the Manifest

EPA proposes to revise the categories of PCB waste specified by the generator on the manifest to match the categories of PCB waste specified by the commercial storer or disposer in the annual document log and annual report. Harmonizing these PCB waste categories would streamline recordkeeping for commercial storers and disposers, while imposing negligible burden on the generators. Currently, § 761.207(a) requires PCB waste to be listed on the manifest as either "bulk PCBs," "PCB Article Container or PCB Container," or "PCB Article not in a PCB Container or PCB Article Container." EPA is proposing to modify § 761.207(a) to list the five categories from § 761.180(b)(3)(iii) through (vi). If finalized, the categories in § 761.207(a) would be "bulk PCBs," "PCB Transformers," "PCB Large High or Low Voltage Capacitors," "PCB Article Containers," and "PCB Containers<sup>68</sup>." The requirements for supporting data (unique identification number, weight in kilograms, date removed from service) would remain the same. EPA is also proposing to remove references to instructions in the Appendix of Part 262 because the instructions were recently removed from it and are available on EPA's website.<sup>69</sup>

#### Define "As-found concentration"

EPA proposes to add a definition of "as-found concentration" to § 761.3. "As-found concentration" is used in the PCB regulations particularly in reference to PCB remediation waste

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<sup>68</sup> While the text in § 761.180(b)(3)(iii) through (vi) is of the format "PCB waste in PCB Containers," due to limited space in Box 14 of the manifest form, EPA chose to simplify the language to "PCB Containers" or similar.

<sup>69</sup> <https://www.epa.gov/hwgenerators/uniform-hazardous-waste-manifest-instructions-sample-form-and-continuation-sheet>

(§§ 761.50(b) and 761.61). The proposed language clarifies that the as-found concentration must be measured from samples collected in-situ, unless otherwise specifically provided. Existing accumulations, as described in § 761.340(a) would be one such exception. Often, ex-situ sampling reduces the concentration of PCBs in environmental media through dilution.

The proposed definition would provide that “As-found concentration means the concentration measured in samples of environmental media or material collected in-situ (i.e. prior to being moved or disturbed for cleanup and/or disposal), unless otherwise specifically provided. For example, soils must not be disturbed, nor may they be diluted (e.g., excavated, placed on a pile, and sampled after such placement) before characterization sampling is conducted. Sampling media in piles and existing accumulations would be considered “as-found” if the media were already in piles when the site was first visited by the responsible party, such as during the redevelopment of abandoned properties with historic PCB contamination. The as-found concentration is distinct from the source concentration, which is the concentration of the PCBs in the material that was originally spilled, released, or otherwise disposed of at the site.”

#### Clarify § 761.61(a) Cleanups Must Comply with All Applicable Requirements

EPA proposes to clarify that responsible parties must ensure that notifications submitted under § 761.61(a) comply with all requirements of § 761.61(a)(3)(i) in order to proceed without EPA approval 30 days after submission to EPA. EPA is also proposing to add language clarifying that the subsequent cleanup and disposal must comply with all applicable requirements in § 761.61(a)(4) through (9).

The regulations at § 761.61(a) establish a 30-day time frame for EPA to review and react to self-implementing cleanup notifications. If the Agency does not respond within 30 days of receiving the notification, the person may proceed with cleanup and disposal in accordance with the information in the submitted notification. This provision, as currently written, equates EPA’s silence over the 30-day period with a determination by EPA that the notification is complete and accurate. EPA believes that the responsible party should be responsible for verifying completeness and accuracy of the notification.

EPA is proposing to remove the section of text that states the responsible party may assume that



the notification is complete and acceptable if the Agency does not respond within 30 days. The responsible party may still proceed with the cleanup if the Agency does not respond within 30 days. However, if upon review EPA determines that the notification does not contain all of the information required by § 761.61(a)(3)(i), sufficient to ensure compliance with § 761.61(a)(4) through (9) at the site, the Agency may require the submission of additional information. Furthermore, regardless of the content of the notification, the proposed language states that the cleanup and disposal must meet all requirements of § 761.61(a)(4) through (9). If the applicant has reason to believe their implementation of § 761.61(a) may not satisfy the regulatory requirements, it would be in their best interest, from a compliance assurance perspective, to contact the appropriate EPA Regional PCB Coordinator prior to the end of the 30-day period (or earlier) or at least prior to commencing the cleanup and disposal activities. See the EPA PCB website for a list of the EPA Regional PCB Coordinators [www.epa.gov/pcbs/program-contacts](http://www.epa.gov/pcbs/program-contacts). See proposed § 761.61(a)(3)(ii).

#### Harmonize PCB Concentration Language regarding Cap Material

EPA proposes to correct a remediation waste cap requirement to provide consistency with the rest of the PCB regulations. Currently, § 761.61(a)(7) requires that “a cap shall not be contaminated at a level  $\geq 1$  ppm PCB per Aroclor<sup>TM</sup> (or equivalent) or per congener.” EPA is proposing to delete “per Aroclor<sup>TM</sup> (or equivalent) or per congener” to make this requirement consistent with the rest of the PCB regulations. A PCB congener is a single version of the PCB molecule, with a number of chlorine atoms attached to the benzene rings in different configurations. Theoretically, there are 209 PCB congeners possible.<sup>70</sup> Aroclors are mixtures of PCB congeners that were manufactured between 1929 and 1979; there are sixteen known Aroclors.<sup>71</sup>

Other than this paragraph, the regulations only specify requirements or restrictions based on PCB concentrations, rather than PCB congener concentrations or PCB Aroclor concentrations. The PCB

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<sup>70</sup> <https://www.epa.gov/pcbs/table-polychlorinated-biphenyl-pcb-congeners>

<sup>71</sup> <https://www.epa.gov/pcbs/table-aroclors>

regulations at § 761.1(b)(2) state “Unless otherwise provided, PCBs are quantified based on the formulation of PCBs present in the material analyzed,” which means that when PCBs are present as Aroclors, e.g., in PCB transformer oil, they should be measured and reported as Aroclors. When PCBs are present as congeners, e.g., in weathered environmental samples, they should be measured and reported as congeners. Furthermore, there is no technical or risk-based reason why PCB remediation waste cap requirements should differ from other sections of the PCB regulations. As a result, the newly proposed language simply requires that “a cap shall not be contaminated at a level  $\geq$  1 ppm PCB.” This designation is consistent with how PCB limits are described in the rest of the TSCA PCB regulations. See proposed § 761.61(a)(7).

#### Clarify Applicability of Deed Restrictions

EPA proposes to clarify the requirements for deed restrictions associated with PCB remediation waste being left on-site under a self-implementing cleanup and disposal activity (§ 761.61(a)). The self-implementing cleanup and disposal option for PCB remediation waste provides for varying cleanup levels based on the occupancy level and the presence of a fence or cap. When cleanup levels are based upon low occupancy of the cleanup area or the existence of a fence or cap (either in high or low occupancy areas), deed restrictions are required (see § 761.61(a)(8)). EPA intends for the December 2012 Institutional Controls document to provide guidance on how to effectively plan, implement, maintain, and enforce deed restrictions required under § 761.61(a)(8).<sup>72</sup> EPA’s 2005 PCB Site Revitalization Guidance confirms that § 761.61(a)(8) requires a deed restriction for all cleanups requiring caps or fences, and all cleanups based on low-occupancy uses.<sup>73</sup> However, portions of the regulatory text could suggest that the deed restriction must reference low-occupancy status *and* the existence of a cap or fence in every case, even though some sites with low occupancy cleanups will not

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<sup>72</sup> Institutional Controls: A Guide to Planning, Implementing, Maintaining, and Enforcing Institutional Controls at Contaminated Sites. December 2012.

[https://www.epa.gov/sites/production/files/documents/final\\_pime\\_guidance\\_december\\_2012.pdf](https://www.epa.gov/sites/production/files/documents/final_pime_guidance_december_2012.pdf)

<sup>73</sup> Polychlorinated Biphenyl (PCB) Site Revitalization Guidance Under the Toxic Substances Control Act (TSCA). November 2005. Page 13. <https://www.epa.gov/sites/production/files/2015-08/documents/pcb-guid3-06.pdf>

have caps or fences, and some sites with caps or fences will not be low-occupancy. In particular, the text of § 761.61(a)(8)(i)(A) could suggest that all of the elements identified in § 761.61(a)(8)(i)(A)(1) through (3) (i.e., low-occupancy and caps or fences) will be present at sites subject to the deed restriction, whereas EPA plainly intended the deed requirement to apply to all sites cleaned up to low-occupancy levels, and/or requiring caps or fences. To remedy any potential for confusion, EPA is proposing several minor edits to § 761.61(a)(8) to clarify that deed restrictions apply to any area with a cap, a fence, or a low occupancy designation.

In addition, EPA proposes to clarify in § 761.61(a)(8)(i)(A) that the deed restriction should designate the portion of a property that is subject to the deed restriction, when applicable. The deed restriction should reference the location of the cap, fence, or low occupancy portion in a format that makes sense for the site, for example, latitude/longitude coordinates, street address, or annotated areal image.

#### **Include Alternate Extraction and Analysis under § 761.61(c) – PCB Remediation Waste**

EPA proposes to clarify that the risk-based approval under § 761.61(c) can be used to modify or replace the extraction or analysis methods required for PCB remediation waste in lieu of a Subpart Q comparison study. EPA’s current practice is to allow responsible parties to request to modify or replace an extraction or analysis method, as they are considered part of the sampling requirements. The proposed change would simply clarify that responsible parties have this option, by adding “extraction, analysis” to the list of modifiable requirements under a § 761.61(c) risk-based approval.

#### **Include Alternate Extraction and Analysis under § 761.62(c) – PCB Bulk Product Waste**

EPA proposes to clarify that the risk-based approval under § 761.62(c) can be used to modify or replace the extraction or analysis methods required for PCB bulk product waste in lieu of a Subpart Q comparison study. EPA’s current practice is to allow responsible parties to request to modify or replace an extraction or analysis method, as they are considered part of the sampling requirements. The proposed change would simply clarify that responsible parties have this option, by adding “extraction, analysis” to the list of modifiable requirements under a § 761.62(c) risk-based approval.

#### Include Alternate Extraction and Analysis under § 761.79(h) – Decontaminated material

EPA proposes to clarify that an approval under § 761.79(h) can be used to modify or replace the extraction or analysis methods required for decontaminated PCB waste in lieu of a Subpart Q comparison study. EPA's current practice is to allow responsible parties to request to modify or replace an extraction or analysis method, as they are considered part of the sampling procedure. The proposed change would simply clarify that responsible parties have this option, by adding "extraction, analysis" to the list of modifiable requirements under a § 761.79(h) approval.

#### Clarify Sampling Procedure for Non-Porous Surfaces

EPA proposes to correct an inconsistency in the site characterization requirements for non-porous surfaces conducted pursuant to the self-implementing cleanup option for PCB remediation waste (§ 761.61(a)). This self-implementing cleanup and disposal option states that site characterization of non-porous surfaces may be conducted using procedures included in Subpart N. The method found in Subpart N for sampling non-porous surfaces (§ 761.267) specifies that the sampling area shall be divided into "square portions approximately 2 meters on each side" and "[f]ollow[ing] the procedures in § 761.302(a)." However, § 761.302(a), which is the section of the regulations pertaining to post-cleanup sampling of non-porous surfaces, specifies dividing the surface into 1 meter square portions instead of 2 meters. EPA is proposing to amend § 761.267 by adding the following italicized language to this provision, "Follow the procedures in § 761.302(a), *with the exception of the sampling grid size,*" to correct this inconsistency. This change reflects the way in which the EPA has already been addressing the inconsistency. See proposed § 761.267(a).

#### Add Unit to Concentration in § 761.1(b)(3)

Currently, § 761.1(b)(3) lists a concentration with only partial units of reference, "PCB concentrations of  $> 10 / 100 \text{ cm}^2$ ," which is meaningless, as written. It is clear from context that the text should read "PCB concentrations of  $\geq 10 \text{ } \mu\text{g}/100 \text{ cm}^2$ ," which is how the referenced concentration otherwise appears throughout the PCB regulations, for example in § 761.79(b). Thus, EPA is proposing to modify the § 761.1(b)(3) text to read "PCB concentrations of  $\geq 10 \text{ } \mu\text{g}/100 \text{ cm}^2$ ." EPA is also

proposing to harmonize the “greater/less than” and “greater/less than or equal to” symbols in this section. See proposed § 761.1(b)(3).

#### Update ASTM Methods

The regulations at § 761.19 incorporate by reference several ASTM test method standards that have since been updated. These ASTM standards reflect the current consensus of ASTM members. EPA proposes to make the following changes:

ASTM D93-09, Standard Test Methods for Flash Point by Pensky-Martens Closed Tester, was approved by ASTM in 2009 and added to the PCB regulations in 2012 at §§ 761.71(b)(2)(vi) and 761.75(b)(8)(iii).<sup>74</sup> EPA is proposing to add as an alternative ASTM D8175-18, Test Method for Finite Flash Point Determination of Liquid Wastes by Pensky-Martens Closed Cup Tester.

ASTM D3278-89, Standard Test Methods for Flash Point of Liquids by Setaflash Closed-Cup Apparatus, was approved by ASTM in 1989 and added to the PCB regulations in 1992 at § 761.75(b)(8)(iii).<sup>75</sup> EPA is proposing to replace it with the updated version, ASTM D3278-96 (Reapproved 2011), Standard Test Methods for Flash Point of Liquids by Small Scale Closed-Cup Apparatus, and add ASTM D8174-18, Test Method for Finite Flash Point Determination of Liquid Wastes by Small Scale Closed Cup Tester at §§ 761.71(b)(2)(vi) and 761.75(b)(8)(iii).

EPA is proposing to remove ASTM D2784-89, Standard Test Method for Sulfur in Liquified Petroleum Gases (Oxy-hydrogen Burner or Lamp) from §761.19 and §71(a)(2)(vi). This test method was withdrawn in June 2016 because it is archaic and not used in the industry.<sup>76</sup>

EPA is proposing to replace ASTM D3178-84, Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coke and Coal, with D5373-16, Standard Test Methods for Determination of Carbon, Hydrogen and Nitrogen in Analysis Samples of Coal and Carbon in Analysis Samples of Coal

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<sup>74</sup> 77 FR 2463, Jan. 18, 2012

<sup>75</sup> 57 FR 13323, Apr. 16, 1992

<sup>76</sup> <https://compass.astm.org/Standards/WITHDRAWN/D2784.htm>

and Coke, in §§ 761.19 and 761.71(a)(2)(vi). ASTM D3178-84 was replaced in June 2007 because there was no reproducibility statement for D3178.<sup>77</sup>

EPA is proposing to update ASTM Standard D-4059, Standard Test Method for Analysis of Polychlorinated Biphenyls in Insulating Liquids by Gas Chromatography, with ASTM D4059-00 (Reapproved 2018), Standard Test Methods for Analysis of Polychlorinated Biphenyls in Insulating Liquids by Gas Chromatography, in §§ 761.19 and 761.60(g)(iii).

EPA is proposing to replace ASTM D482–87, Standard Test Method for Ash from Petroleum Products, with ASTM D482-13, Standard Test Method for Ash from Petroleum Products, in § 761.71(a)(2)(vi). EPA is also proposing to replace ASTM D3278–89, Standard Test Methods for Flash Point of Liquids by Setaflash Closed-Cup Apparatus, with ASTM D3278–96, Standard Test Methods for Flash Point of Liquids by Small Scale Closed-Cup Apparatus, in §761.75(b)(8)(iii) (see above). ASTM began building its electronic library of standards in the 1990s, so the 1987 version of ASTM D482 and the 1989 version of ASTM D3278 are no longer available from the ASTM website. Therefore, the Agency is updating ASTM D482–87 and ASTM D3278–89 to list the most recent versions of the methods.

Furthermore, EPA requests public comment on whether there are other standards that should be incorporated by reference or whether there are standards that should be removed from the regulations entirely. EPA is relying on voluntary consensus standards developed by ASTM and already in use in the laboratory testing sector, which is consistent with the National Technology Transfer and Advancement Act (NTTAA). EPA has found that most of the entities that would have to comply with these standards are already familiar with them, since it would be difficult to be in the business of testing for PCBs without being familiar with these industry consensus standards. The standards are all readily available electronically or in print and are relatively inexpensive. See proposed § 761.19.

Require a wipe sample under § 761.30(i)(4)

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<sup>77</sup> <https://compass.astm.org/Standards/WITHDRAWN/D3178.htm>

Currently, § 761.30(i)(4) (covering PCB characterization of natural gas pipe) reads, in part, “...if no liquids are present, they must use standard wipe samples in accordance with Subpart M of this part.” This language might be read to mean that all owners of natural gas pipe must characterize their pipe and must do so using a wipe sample if no liquids are present. However, the sentence was meant to convey that if an owner *chooses* to characterize natural gas pipe that does not contain liquids, they must do so using wipe samples. Therefore, EPA is proposing to replace the existing text with “if no liquids are present and they decide, in their discretion, to characterize PCB contamination, the person must use standard wipe samples in accordance with Subpart M of this part.” See proposed § 761.30(i)(4).

#### High Efficiency Boilers Approval Application Requirements

EPA is proposing to correct an editorial error in § 761.71. This section describes the required operating parameters for high efficiency boilers that dispose of PCB waste. The requirements for high efficiency boilers are divided into two sections, a section for burning PCB-contaminated mineral oil dielectric fluid (§ 761.71(a)) and a section for burning any other PCB-contaminated fluids (§ 761.71(b)). Mineral oil dielectric fluid is an insulating fluid used in electrical equipment such as transformers. Other PCB-contaminated fluids might include used oil, contaminated water, and hydraulic fluid. Despite the fact that § 761.71(b) regulates high efficiency boilers that burn PCB liquids *other* than mineral oil dielectric fluid, § 761.71(b)(2)(iv) requires persons seeking approval to burn these liquids to submit to the EPA Regional Administrator a statement of “the type of equipment, apparatus, and procedures to be used to control the feed of *mineral oil dielectric fluid* to the boiler...” (emphasis added). In that sentence, “mineral oil dielectric fluid” should, instead, be “PCB liquids.” This proposal would amend § 761.71(b)(2)(iv) to correct this error by replacing the phrase “mineral oil dielectric fluid” with “PCB liquids.” See proposed § 761.71(b)(2)(iv).

#### Mailing Address for Annual Reports

Currently, the owner or operator of any PCB disposal facility or commercial storage facility submits an annual report to the EPA Regional Administrator for the region in which the facility is located, pursuant to § 761.180(b)(3). EPA proposes to change the recipient of the annual reports from

the Regional Administrator to the Director of the Office of Resource Conservation and Recovery, which is the office in EPA headquarters that manages the PCB cleanup and disposal program. An analogous change is also proposed in § 761.3 under the definition of *annual report*. This change would reduce the administrative burden on the Agency of compiling the data in the annual reports, which is used to inform Agency actions. The address for submission would be displayed prominently on the proposed mandatory form. See proposed §§ 761.3 and 761.180(b)(3).

#### Update address for submission of EPA form 7710-53

EPA proposes to remove the address for EPA form 7710-53, “Notification of PCB Activity,” from the regulations. This change will allow EPA to more easily update the mailing address in the future without undergoing a regulatory change. The mailing address will continue to appear on the form itself and can be updated through the Information Collection Response (ICR) process. This proposed change would expedite future address changes and thus streamline the distribution of mail and reduce the processing time for these forms. See proposed § 761.205(a)(3), § 761.205(d).

#### Add field for facility email address and EPA PCB email address to EPA form 7710-53

EPA form 7710-53, “Notification of PCB Activity,” currently does not include space for an email address for the facility point of contact. EPA proposes to change the regulations so that an email address must be submitted on the notification form. Additionally, EPA is adding the EPA PCB email address (ORCRPCBs@epa.gov) to the notification form to facilitate any questions from members of the public. These proposed changes would improve communication and reduce the processing time for these forms. See proposed § 761.205(a)(3), § 761.205(d).

#### Sample Site Selection Instructions for Pipelines

Subpart M provides a number of steps that must be followed when selecting the locations for sampling to characterize natural gas pipeline. EPA found that, due to rounding errors, the instructions for a pipeline greater than seven segments but shorter than three miles in length are, at present, incorrect. EPA proposes to modify the instructions and the example given in § 761.247(b)(2)(ii)(B) to clarify where each sample must be taken along pipelines of this length. This change is a technical correction



and does not influence the number of samples taken or the burden on the owner of the pipe. See proposed § 761.247(b)(2)(ii)(B).

#### Remove Reference to Method 3500B

SW-846 is organized such that several similar methods are grouped together in a series and the 3500 series contains extraction procedures used for the preparation of samples for analysis of organic parameters. These techniques include Liquid-Liquid Extraction, Solid-Phase Extraction, Soxhlet Extraction, and Supercritical Fluid Extraction, among others. Method 3500B (recently updated to Method 3500C) is not a detailed method where step-by-step instructions are discussed.<sup>78,79</sup> Rather, Method 3500B simply provides general guidance for all the methods within its series (i.e., 3500 series), including the extraction methods proposed to be added as part of this rulemaking. Also, Method 3500B or 3500C is already referenced in every 3500 series method EPA is proposing to add to the PCB Regulations. Therefore, EPA feels that it is unnecessary to reference Method 3500B in the PCB regulations directly and proposes to remove the reference from the PCB regulations. The removal of Method 3500B from the regulations would not influence any of the 3500 series methods currently in or proposed to be added to the PCB regulations. The PCB regulatory sections affected include §§ 761.61(a)(5)(i)(B)(2)(iv), 761.253, 761.272, 761.292, 761.358, and 761.395.

#### Correct References to SW-846

The official title of the EPA publication known as SW-846 has been updated from “Test Methods for Evaluating Solid Waste” to “Test Methods for Evaluating Solid Waste: Physical/Chemical Methods.” There are several references to this publication throughout the PCB regulations. EPA proposes to update the definition of SW-846 in § 761.3 with the current official title, and then refer to it

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<sup>78</sup> U.S. EPA, Method 3500B Organic Extraction and Sample Preparation. Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division (5303P). Washington, D.C. December 1996.

<sup>79</sup> U.S. EPA, Method 3500C Organic Extraction and Sample Preparation. Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division (5303P). Washington, D.C. February 2007.

as “SW-846” throughout the PCB regulations, for readability. See proposed §§ 761.3, 761.60(g)(1)(iii), 761.61(a)(5)(i)(B)(2)(iv), 761.253(a), 761.272, 761.292, 761.358, 761.395(b)(1).

#### Correct References to EPA’s PCB website

There are several references throughout the PCB regulations to the EPA’s PCB website. In 2015, as part of a redesign, the URL for the EPA PCB webpage changed from <https://www.epa.gov/pcb> to <https://www.epa.gov/pcbs>. EPA proposes to update those references throughout the PCB regulations. See proposed §§ 761.130(e), 761.205(a)(3), 761.243(a), 761.386(e).

#### Change “he” to “they”

The PCB regulations frequently refer to generic individuals such as the Regional Administrator or facility owners as “he,” “his,” “he/she,” or “he or she.” EPA proposes to replace all such references with the gender neutral “they” and “their.” See proposed §§ 761.3, 761.20(e)(3)(ii)(B), 761.20(e)(4)(i), 761.20(e)(4)(ii), 761.50(b)(3)(i)(A), 761.60(b)(2)(v)(C), 761.61(a)(8)(i)(B), 761.65(g), 761.65(h), 761.70(d)(4)(i), 761.75(c)(3)(i), 761.75(c)(4), 761.77(a)(1)(ii)(B), 761.77(a)(2), 761.77(b), 761.120(b)(2), 761.125(c)(3)(iii), 761.125(c)(4)(iv), 761.180(b)(4), 761.207(c), 761.212(a), 761.213(a)(4), 761.213(b), 761.214(a), 761.216(a), 761.217(a)(2)(ii).

#### Change “on site” to “on-site”

The term “on site” is included in the definitions at § 761.3, but the PCB regulations use the term “on-site” throughout. EPA proposes to modify § 761.3 to read “on-site” to improve the readability of the PCB regulations. See proposed § 761.3.

#### Correct reference to methods for standard wipe test samples

Currently, § 761.314 “Chemical analysis of standard wipe test samples” instructs the reader to “perform the chemical analysis of standard wipe test samples in accordance with §761.272.” While § 761.272 does contain the allowable methods for wipe test samples, it also lists several other methods that would not be appropriate for wipe test samples. This reference is proposed to be corrected to § 761.253, which is specific to wipe samples.

#### Incorporation by Reference

The Agency is proposing to incorporate by reference SW-846 Test Methods 3540C, 3541, 3545A, 3546, 3510C, 3520C, 3535A, 8082, 8082A, and 8275A into 40 CFR part 761 under §§ 761.60, 761.61, 761.253, 761.272, 761.292, 761.358, and 761.395. The Agency is also proposing to incorporate by reference Clean Water Act Analytical Method 1668C into 40 CFR part 761 under §§ 761.60, 761.61, 761.253, 761.272, 761.292, 761.358, and 761.395. These test methods are described in detail in *Section III.A. Expand Available Extraction Methods for PCBs* and *Section III.C. Add Determinative Methods for the PCB Regulations*, above. The Agency is also proposing to incorporate the following methods by reference that involve testing the flash points of liquids to evaluate the ignitability of liquid wastes: ASTM standards D3278–96 (Reapproved 2011), D8174–18, and D8175–18. ASTM D3278–96 (Reapproved 2011) uses a small-scale tester to determine the flash point, ASTM D8174–18 also uses a small-scale tester but tests whether a material does or does not flash at a specific temperature, and ASTM D8175–18 uses a Pensky-Martens tester to determine the flash point. Likewise, the Agency is proposing to incorporate by reference ASTM standard D482–13, which determines the percentage of ash generated from distillate and residual fuels, gas turbine fuels, crude oils, lubricating oils, waxes, and other petroleum products. The Agency is also proposing to incorporate by reference ASTM Standard D4059–00 (R18), which is a quantitative determination of the concentration of polychlorinated biphenyls (PCBs) in electrical insulating liquids by gas chromatography. Lastly, the Agency is proposing to incorporate by reference ASTM Standard D5373–16, which is used to determine the concentration of hydrogen and nitrogen in analysis samples of coal and of carbon in analysis samples of coal and coke. These methods will be incorporated by reference into 40 CFR part 761 under §§ 761.60, 761.71, and 761.75.

ASTM D93–09, D129–64, D240–87, D524–88, D808–87, D923–86, D923–89, D1266–87, D1796–83, D2158–89, D2709–88, and E258–67 (Reapproved 1987) were previously approved for incorporation by reference on January 18, 2012.

The SW–846 Test Methods proposed for incorporation by reference are published in the test methods compendium known as, “Test Methods for Evaluating Solid Waste, Physical/Chemical

Methods,’’ EPA Publication SW–846, Third Edition, available at <https://www.epa.gov/hw-sw846>. The Clean Water Act Analytical Methods are available at <https://www.epa.gov/cwa-methods>. ASTM materials may be obtained from ASTM International, 100 Barr Harbor Dr., P.O. Box C700, West Conshohocken, PA 19428–2959, or by calling (877) 909–ASTM, or at <https://www.astm.org>. All methods proposed for incorporation by reference are also included in the docket.

#### **IV. Economic Impacts of the Proposed Rulemaking**

One focus of the proposed rule is expanding the allowable PCB extraction methods, which would impact testing laboratories (NAICS code 541380) that currently perform PCB extractions under TSCA. Based on method-specific certifications and communication with laboratory personnel, EPA estimates that approximately 22 laboratories would be impacted by the proposed rule. Further, EPA estimates that these 22 laboratories perform approximately 65,000 relevant extractions each year. Some laboratories may experience a one-time cost of purchasing equipment used to perform one of the proposed extraction methods. However, the decreases in solvent and labor hours required to perform the proposed extraction methods are expected to result in net annual cost savings of approximately \$4.2 million (annualized at a discount rate of seven percent).

Updating the permissible PCB determinative methods would offer the regulated community greater flexibility. However, EPA does not anticipate that it would have an economic impact, since most labs are expected to continue using EPA Method 8082 or EPA Method 8082A as their PCB determinative method.

The proposed revisions to § 761.61(b) may impact any facility performing a PCB site remediation under § 761.61(b). No data are available on the exact number of § 761.61(b) remediations performed annually, but EPA estimates that there would be between 430 and 460 relevant remediations per year, based on an analysis of 2018 and 2019 hazardous waste manifests. Certain aspects of this provision would increase burden on the regulated community through certain requirements (e.g., recordkeeping, notification, sampling). However, EPA also proposes to allow for disposal of relevant waste at RCRA Subtitle C landfills under § 761.61(b), in addition to the existing disposal options (e.g.

TSCA landfills, TSCA incinerators), which will decrease transportation and disposal costs related to non-hazardous, non-liquid PCB waste for the regulated community. Overall, the proposed revisions to § 761.61(b) are expected to result in net annual cost savings between \$9.2 million and \$10.9 million (annualized at a discount rate of seven percent).

Disallowing PCB bulk product waste to be used as roadbed has the potential to create a slight increase in costs for the regulated community. Facilities that would have used PCB bulk product waste on-site as roadbed under asphalt would now have to pay to transport the waste to a municipal solid waste landfill and pay the associated tipping fee for disposal. EPA believes that the practice of using PCB bulk product waste as roadbed is exceedingly rare. However, in an effort to incorporate all potential impacts of the proposed rule, the Economic Assessment modeled a single party using PCB bulk product waste as roadbed per year. EPA estimates that the cost increase for the regulated community would be between \$660 and \$5,950 per year.

EPA anticipates that the added flexibilities for emergency situations would result in cost savings for the regulated community. EPA estimates that there would be between 12 and 60 emergencies each year where the regulated community may use the proposed flexibilities. A lack of data prevents an overall quantitative estimate of the cost savings from this provision. However, impacted parties are expected to save money and time by avoiding delays associated with searches for the source of the spill during an emergency situation where the search is likely to be time-consuming and unsuccessful, and by being able to manage waste under the less burdensome procedures of § 761.125(b), rather than § 761.125(c). The regulated community is also expected to see a decrease in sampling and testing expenditures.

The proposed change to harmonize the general disposal requirements for PCB remediation waste is in line with current EPA policy, guidance and practice. Therefore, EPA estimates that this change will not have any economic impact.

The Economic Assessment for the proposed rule is constrained by the lack of relevant data, largely because the proposed rule makes changes to provisions that are self-implementing and/or require

no EPA notification. EPA has quantified costs and cost savings when possible. When quantification has not been possible, EPA has analyzed the costs and cost savings qualitatively. The Economic Assessment associated with the proposed rule can be referenced for a greater level of detail related to the costs and benefits of the proposed provisions. EPA requests comments and data related to the universe of parties impacted by the proposed provisions and the economic impact of the proposed rule.

## **V. Statutory and Executive Order Reviews**

Additional information about these statutes and Executive Orders can be found at <https://www.epa.gov/laws-regulations/laws-and-executive-orders>.

### *A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review*

This action is a significant regulatory action that was submitted to the Office of Management and Budget (OMB) for review under Executive Order 12866 (58 FR 51735, October 4, 1993) and Executive Order 13563 (76 FR 3821, January 21, 2011). Any changes made in response to OMB recommendations have been documented in the docket. The Economic Assessment is available in the docket and is summarized in *Section I.D What are the projected economic impacts of this action?* of the preamble.

### *B. Paperwork Reduction Act (PRA)*

The information collection activities in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the PRA, 44 U.S.C. 3501 *et seq.* The Information Collection Request (ICR) document that the EPA prepared has been assigned EPA ICR number 2688.01 (2050-NEW). You can find a copy of the ICR in the docket for this rule, and it is briefly summarized here.

*Respondents/affected entities:* The information collection requirements of the proposed rule affect facilities that will read the proposed rule, responsible parties using § 761.61(b)(1) performance-based cleanup, responsible parties using § 761.66 waivers in emergency situations, commercial storers and disposers submitting annual reports, and entities submitting Notification of PCB Activity forms.

*Respondent's obligation to respond:* The recordkeeping and notification requirements are required for parties performing relevant activities (e.g. using § 761.66 waivers in emergency situations). These requirements are described in detail in the ICR Supporting Statement.

*Estimated number of respondents:* 1,085

*Frequency of response:* On occasion/as necessary.

*Total estimated burden:* 8,276 hours.

*Total estimated cost:* \$979,187.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9. Submit your comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the EPA using the docket identified at the beginning of this rule. You may also send your ICR-related comments to OMB's Office of Information and Regulatory Affairs via email to [OIRA\\_submission@omb.eop.gov](mailto:OIRA_submission@omb.eop.gov), Attention: Desk Officer for EPA. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after receipt, OMB must receive comments no later than **[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**. The EPA will respond to any ICR-related comments in the final rule.

### *C. Regulatory Flexibility Act (RFA)*

I certify that this action will not have a significant economic impact on a substantial number of small entities under RFA, 5 U.S.C. 601 *et seq.* In making this determination, the impact of concern is any significant adverse economic impact on small entities. An agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves burden or has no net burden on the small entities subject to the rule. These proposed changes would reduce the impacts on all small entities subject to the rule, so there are no significant impacts to any small entities. We have therefore concluded that this action will relieve regulatory burden for all directly regulated

small entities. Details of this analysis are presented in the Economic Assessment, which is in the public docket for this action.

*D. Unfunded Mandates Reform Act (UMRA)*

This action does not contain an unfunded mandate of \$100 million or more as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. EPA estimates that the proposed rule would result in net annual cost savings of between \$4.3 and \$9.1 million, assuming a seven percent discount rate. As a result, EPA expects that the rule would not result in annual expenditures exceeding \$100 million annually and therefore would not be subject to requirements of section 202 of UMRA as listed above.

*E. Executive Order 13132: Federalism*

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

*F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments*

This action does not have tribal implications as specified in Executive Order 13175 (65 FR 67249, November 9, 2000) because the action is not expected to result in any adverse environmental or human health impacts on tribal entities. In addition, the action is expected to result in a cost savings, and not expected to result in any adverse financial impacts on tribal entities. Thus, Executive Order 13175 does not apply to this rule. Consistent with the EPA Policy on Consultation and Coordination with Indian Tribes, the EPA prepared a tribal consultation and coordination plan and sent a letter to the tribes on July 13, 2021, inviting consultation. EPA will provide a summary of any tribal consultation conducted in the docket.

*G. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks*

This action is not subject to Executive Order 13045 (62 FR. 19885, April 23, 1997) because it is not an economically significant regulatory action as defined by Executive Order 12866. In addition, because the rule would not increase risk related to exposure to hazardous materials, the Agency does not



believe the environmental health or safety risks addressed by this action present a disproportionate risk to children.

*H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution or Use*

This action is not a “significant energy action” under Executive Order 13211, “Actions Concerning Regulations that Affect Energy Supply, Distribution, or Use” (May 18, 2001) because it is not likely to have a significant adverse effect on the supply, distribution or use of energy. The proposed rule would not directly regulate energy production or consumption and is expected to result in net cost savings.

*I. National Technology Transfer and Advancement Act (NTTAA)*

This action involves technical standards. In this rulemaking, the EPA incorporates voluntary consensus standards (VCSs) developed by both ASTM and the Agency into the rulemaking, consistent with the National Technology Transfer and Advancement Act (NTTAA). These VCSs support PCB cleanups as well sampling activities including the extraction and analysis of PCBs. For more details on the technical standards that EPA is using in this rulemaking, please see *Section III.G - Incorporation by Reference*.

*J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*

EPA believes that this action does not have disproportionately high and adverse health or environmental effects on minority populations, low-income populations and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994). In fact, this action is expected to benefit these populations.

Generally, the proposed rule would modernize PCB regulations, making it easier and more affordable to clean up contaminated sites, while continuing to ensure that the requirements remain protective of health and the environment. Underserved, disadvantaged, and overburdened communities are expected to benefit from quicker, more cost-effective, compliant cleanups under the proposed

rule. For example, adding explicit cleanup provisions under §761.61(b), including the requirements to notify EPA and follow specific sampling protocols, would provide additional assurance that sites are properly remediated and enable compliance and enforcement. Furthermore, the increased flexibility in emergency situations would allow the Agency to work collaboratively with responsible parties during and after the response to a natural disaster or other emergency, which can disproportionately impact such communities.

#### **List of Subjects in 40 CFR Part 761**

Environmental protection, Hazardous substances, Incorporation by reference, Labeling,  
Polychlorinated biphenyls (PCBs), Reporting and recordkeeping requirements.

Barry N. Breen,  
*Acting Assistant Administrator,*  
*Office of Land and Emergency Management.*

For the reasons set out in the preamble, EPA proposes to amend title 40, chapter I of the Code of Federal Regulations, part 761 as follows:

**PART 761—POLYCHLORINATED BIPHENYLS (PCBs) MANUFACTURING, PROCESSING, DISTRIBUTION IN COMMERCE, AND USE PROHIBITIONS**

1. In part 761, the authority citation continues to read as follows:

**Authority:** 15 U.S.C. 2605, 2607, 2611, 2614, and 2616.

**Subpart A—General**

2. Amend § 761.1 by revising paragraph (b)(3) to read as follows:

**§ 761.1 Applicability.**

\* \* \* \* \*

(b) \* \* \*

(3) Most provisions in this part apply only if PCBs are present in concentrations above a specified level. Provisions that apply to PCBs at concentrations of < 50 ppm apply also to contaminated surfaces at PCB concentrations of < 10 µg/100 cm<sup>2</sup>. Provisions that apply to PCBs at concentrations of ≥ 50 to < 500 ppm apply also to contaminated surfaces at PCB concentrations of ≥ 10 µg/100 cm<sup>2</sup> to < 100 µg/100 cm<sup>2</sup>. Provisions that apply to PCBs at concentrations of ≥ 500 ppm apply also to contaminated surfaces at PCB concentrations of ≥ 100 µg/100 cm<sup>2</sup>.

\* \* \* \* \*

3. Amend § 761.3 by:

- a. Removing in the definition the words “On site” and adding in its place the words “On-site”;
- b. Adding in alphabetical order the definitions “As-found concentration”, “CWA”, “Director, Office Resource Conservation and Recovery”, and “Emergency situation”; and
- c. Revising the definitions “Administrator”, “Annual report”, “ASTM”, “NTIS”, “Non-porous surface”, and “SW-846”.

The revisions and additions read as follows:

**§ 761.3 Definitions.**

\* \* \* \* \*

*Administrator* means the Administrator of the Environmental Protection Agency, or any employee of the Agency to whom the Administrator may either herein or by order delegate their authority to carry out their functions, or any person who shall by operation of law be authorized to carry out such functions.

\* \* \* \* \*

*Annual report* means the completed EPA Form 6200-025 submitted each year by each disposer and commercial storer of PCB waste to the Director, Office of Resource Conservation and Recovery. The annual report is a brief summary of the information included in the annual document log.

\* \* \* \* \*

*As-found concentration* means the concentration measured in samples collected in-situ (i.e., prior to being moved or disturbed for cleanup and/or disposal) from environmental media or material, unless otherwise specifically provided. For example, media must not be disturbed, nor may they be diluted (e.g., excavated, placed on a pile, and sampled after such placement) before characterization sampling is conducted. Sampling media in piles and existing accumulations would be considered “as-found” if the media were already in piles when the site was first visited by the responsible party, such as during the redevelopment of abandoned properties with historic PCB contamination. The as-found concentration is distinct from the source concentration, which is the concentration of the PCBs in the material that was originally spilled, released, or otherwise disposed of at the site.

\* \* \* \* \*

*ASTM* means ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959.

\* \* \* \* \*

*CWA* means Clean Water Act, also known as the Federal Waters Pollution Control Act Amendments of 1972 (33 U.S.C. 12-51-1387, amended ch.23 1151).

\* \* \* \* \*

*Director, Office Resource Conservation and Recovery* means the Director of the Office of Resource Conservation and Recovery of the Office of Land and Emergency Management of the United States Environmental Protection Agency. Submissions to the Director shall be sent to 1200 Pennsylvania Ave. N.W., MC5303P, Washington, DC 20460.

\* \* \* \* \*

*Emergency situation* means adverse conditions caused by manmade or natural incidents that threaten lives, property, or public health and safety; require prompt responsive action from the local, state, tribal, territorial, or federal government; and result in: (1) a declaration by either the President of the United States or Governor of the affected state of a natural disaster or emergency; or, (2) an incident funded under the Federal Emergency Management Agency (FEMA) via a Stafford Act disaster declaration or emergency declaration. Examples of emergency situations may include civil emergencies or adverse natural conditions, such as hurricanes, earthquakes, or tornados.

\* \* \* \* \*

*NTIS* means the National Technical Information Service, 1401 Constitution Ave NW, Washington, DC 20230, telephone: (703) 605-6060.

\* \* \* \* \*

*Non-porous surface* means a smooth, unpainted solid surface that limits penetration of liquid containing PCBs beyond the immediate surface. Examples are: smooth uncorroded metal; natural gas pipe with a thin porous coating originally applied to inhibit corrosion; smooth glass; smooth glazed ceramics; impermeable polished building stone such as marble or granite; and medium- and high-density plastics, such as polycarbonates and melamines, that do not absorb solvents.

\* \* \* \* \*

*SW-846* means the document having the title “SW-846, Test Methods for Evaluating Solid Waste: Physical/Chemical Methods,” also known as the SW-846 Compendium, which is available online at <https://www.epa.gov/hw-sw846>. Hard copies can be obtained from NTIS, U.S. Department of Commerce, 1401 Constitution Ave NW, Washington, DC 20230, telephone: (703) 605-6060.

\* \* \* \* \*

4. Revise §761.19 to read as follows:

**§ 761.19 Incorporation by reference.**

The materials listed in this section are incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. All approved material is available for inspection at the EPA Docket Center (EPA/DC), Rm. 3334, EPA West Bldg., 1301 Constitution Ave., NW., Washington, DC 20460–0001, (202) 566-1744, and is available from the sources listed in the following paragraphs of this section. It is also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov) or go to [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html).

(a) *ASTM International*. 100 Barr Harbor Dr., P.O. Box C700, West Conshohocken, PA 19428–2959, (877) 909–ASTM, [www.astm.org](http://www.astm.org).

(1) ASTM D93-09, Standard Test Methods for Flash Point by Pensky-Martens Closed Tester, Approved December 15, 2009, IBR approved for §§ 761.71 and 761.75.

(2) ASTM D129-64, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), Reapproved 1978, IBR approved for § 761.71.

(3) ASTM D240–87, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuel by Bomb Calorimeter, Approved 1987, IBR approved for §761.71.

(4) ASTM D482–13, Standard Test Method for Ash from Petroleum Products, Approved June 2013, IBR approved for §761.71.

(5) ASTM D524–88, Standard Test Method for Ramsbottom Carbon Residue of Petroleum Products, Approved 1988, IBR approved for §761.71.

(6) ASTM D808–87, Standard Test Method for Chlorine in New and Used Petroleum Products (Bomb Method), Approved 1987, IBR approved for §761.71.

(7) ASTM D923–86, Standard Test Method for Sampling Electrical Insulating Liquids,

Approved 1986, IBR approved for §761.60.

(8) ASTM D923–89, Standard Methods of Sampling Electrical Insulating Liquids, Approved 1989, IBR approved for §761.60.

(9) ASTM D1266–87, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), October 1987, IBR approved for §761.71.

(10) ASTM D1796–83, Standard Test Method for Water and Sediment in Fuel Oils by the Centrifuge Method (Laboratory Procedure), Reapproved 1990, IBR approved for §761.71.

(11) ASTM D2158–89, Standard Test Method for Residues in Liquified Petroleum (LP) Gases, Approved 1989, IBR approved for §761.71.

(12) ASTM D2709–88, Standard Test Method for Water and Sediment in Distillate Fuels by Centrifuge, Approved 1988, IBR approved for §761.71.

(13) ASTM D3278–96 (Reapproved 2011), Standard Test Methods for Flash Point of Liquids by Small Scale Closed-Cup Apparatus, Approved June 2011, IBR approved for §761.75.

(14) ASTM Standard D4059-00 (Reapproved 2018), Standard Test Method for Analysis of Polychlorinated Biphenyls in Insulating Liquids by Gas Chromatography, Approved December 2018, IBR approved for §761.60.

(15) ASTM D5373-16, Standard Test Methods for Determination of Carbon, Hydrogen and Nitrogen in Analysis Samples of Coal and Carbon in Analysis Samples of Coal and Coke, Approved September 2016, IBR approved for §761.71.

(16) ASTM D8174-18, Test Method for Finite Flash Point Determination of Liquid Wastes by Small Scale Closed Cup Tester, Approved March 2018, IBR approved for §§ 761.71 and 761.75.

(17) ASTM D8175-18, Test Method for Finite Flash Point Determination of Liquid Wastes by Pensky-Martens Closed Cup Tester, IBR approved for §§ 761.71 and 761.75.

(18) ASTM E258–67 (Reapproved 1987), Standard Test Method for Total Nitrogen Inorganic Material by Modified KJELDAHL Method, Approved 1987, IBR approved for §761.71.

(b) *U.S. Environmental Protection Agency material. 1200 Pennsylvania Avenue NW.,*

Washington, DC 20460, (202) 272-0167, [www.epa.gov](http://www.epa.gov); <https://www.epa.gov/cwa-methods> and <https://www.epa.gov/hw-sw846>. (Note: For hard copies of these materials, contact: National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Rd., Springfield, VA 22161, (800) 553-6847 or (703) 605-6000.) .

(1) CWA Method 1668C, Chlorinated Biphenyl Congeners in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS, Approved April 2010, IBR approved for §§ 761.61, 761.253, 761.272, 761.292, 761.358, and 761.395.

(2) SW-846 Method 3510C, Separatory Funnel Liquid-Liquid Extraction, Approved December 1996, IBR approved for §§ 761.61, 761.272, and 761.292.

(3) SW-846 Method 3520C, Continuous Liquid-Liquid Extraction, Approved December 1996, IBR approved for §§ 761.61, 761.272, and 761.292.

(4) SW-846 Method 3535A, Solid-Phase Extraction (SPE), Approved February 2007, IBR approved for §§ 761.61, 761.272, and 761.292.

(5) SW-846 Method 3540C, Soxhlet Extraction, Approved December 1996, IBR approved for §§ 761.61, 761.253, 761.272, 761.292, 761.358, and 761.395.

(6) SW-846 Method 3541, Automated Soxhlet Extraction, Approved September 1994, IBR approved for §§ 761.61, 761.253, 761.272, 761.292, 761.358, and 761.395.

(7) SW-846 Method 3545A, Pressurized Fluid Extraction (PFE), Approved January 1998, IBR approved for §§ 761.61, 761.253, 761.272, 761.292, 761.358, and 761.395.

(8) SW-846 Method 3546, Microwave Extraction, Approved February 2007, IBR approved for §§ 761.61, 761.253, 761.272, 761.292, 761.358, and 761.395.

(9) SW-846 Method 8082, Polychlorinated Biphenyls (PCBs) By Gas Chromatography, Approved December 1996, IBR approved for §§ 761.61, 761.253, 761.272, 761.292, 761.358, and 761.395.

(10) SW-846 Method 8082A, Polychlorinated Biphenyls (PCBs) By Gas Chromatography, Approved February 2007, IBR approved for §§ 761.60, 761.61, 761.253, 761.272, 761.292, 761.358,



and 761.395.

(11) SW-846 Method 8275A, Semivolatile Organic Compounds (PAHs And PCBs) in Soils/Sludges and Solid Wastes Using Thermal Extraction/Gas Chromatography/Mass Spectrometry (TE/GC/MS), Approved December 1996, IBR approved for §§ 761.61, 761.253, 761.272, 761.292, 761.358, and 761.395.

**Subpart B—Manufacturing, Processing, Distribution in Commerce, and Use of PCBs and PCB Items**

5. Amend § 761.20 by revising paragraphs (e)(3)(ii)(B), (4)(i), and (ii) as follows:

**§ 761.20 Prohibitions and exceptions.**

\* \* \* \* \*

(e) \* \* \*

(3) \* \* \*

(ii) \* \* \*

(B) The burner will burn the used oil only in a combustion facility identified in paragraph (e)(1) of this section and identify the class of burner they qualify under.

\* \* \* \* \*

(4) \* \* \*

(i) *Marketers.* Marketers who first claim that the used oil fuel contains no detectable PCBs must include among the records required by 40 CFR 279.72(b) and 279.74(b) and (c), copies of the analysis or other information documenting their claim, and they must include among the records required by 40 CFR 279.74(a) and (c) and 279.75, a copy of each certification notice received or prepared relating to transactions involving PCB-containing used oil.

(ii) *Burners.* Burners must include among the records required by 40 CFR 279.65 and 279.66, a copy of each certification notice required by paragraph (e)(3)(ii) of this section that they send to a marketer.

6. Amend § 761.30 by revising paragraph (i)(4) to read as follows:

### **§ 761.30 Authorizations.**

\* \* \* \* \*

(i) \* \* \*

(4) Any person characterizing PCB contamination in natural gas pipe or natural gas pipeline systems must do so by analyzing organic liquids collected at existing condensate collection points in the pipe or pipeline system. The level of PCB contamination found at a collection point is assumed to extend to the next collection point downstream. Any person characterizing multi-phasic liquids must do so in accordance with § 761.1(b)(4); if no liquids are present and they choose, in their discretion, to characterize PCB contamination, the person must use standard wipe samples in accordance with subpart M of this part.

\* \* \* \* \*

### **Subpart D—Storage and Disposal**

7. Amend § 761.50 by revising paragraphs (b)(3)(i)(A) and (3)(ii) to read as follows:

### **§ 761.50 Applicability.**

\* \* \* \* \*

(b) \* \* \*

(3) \* \* \*

(i) \* \* \*

(A) Sites containing these wastes are presumed not to present an unreasonable risk of injury to health or the environment from exposure to PCBs at the site. However, the EPA Regional Administrator may inform the owner or operator of the site that there is reason to believe that spills, leaks, or other uncontrolled releases or discharges, such as leaching, from the site constitute ongoing disposal that may present an unreasonable risk of injury to health or the environment from exposure to PCBs at the site, and may require the owner or operator to generate data necessary to characterize the risk. If after reviewing any such data, the EPA Regional Administrator makes a finding, that an unreasonable risk exists, then they may direct the owner or operator of the site to dispose of the PCB remediation waste in

accordance with § 761.61 such that an unreasonable risk of injury no longer exists.

\* \* \* \* \*

(ii) Any person responsible for PCB waste that was either placed in a land disposal facility, spilled, or otherwise released into the environment on or after April 18, 1978, but prior to July 2, 1979, where the concentration of the spill or release was  $\geq 500$  ppm; or placed in a land disposal facility, spilled, or otherwise released into the environment on or after July 2, 1979, where the concentration of the spill or release was  $\geq 50$  ppm, must dispose of it in accordance with either of the following:

\* \* \* \* \*

8. Amend § 761.60 by revising paragraphs (b)(2)(v)(C) and (g)(1)(iii) and (2)(ii) to read as follows:

**§ 761.60 Disposal requirements.**

\* \* \* \* \*

(b) \* \* \*

(2) \* \* \*

(v) \* \* \*

(C) There is other good cause shown. As part of this evaluation, the Assistant Administrator will consider the impact of their action on the incentives to construct or expand PCB incinerators.

\* \* \* \* \*

(g) \* \* \*

(1) \* \* \*

(iii) Unless otherwise specified in this part, any person conducting the chemical analysis of PCBs shall do so using gas chromatography. Any gas chromatographic method that is appropriate for the material being analyzed may be used, including EPA Method 608.3, 40 CFR part 136, Appendix A; EPA Method 8082A (incorporated by reference, see §761.19) and ASTM D4059-00 (incorporated by reference, see §761.19).

(2) \* \* \*

(ii) For purposes of complying with the marking and disposal requirements, representative samples may be taken from either the common containers or the individual electrical equipment to determine the PCB concentration. Except, that if any PCBs at a concentration of 500 ppm or greater have been added to the container or equipment then the total container contents must be considered as having a PCB concentration of 500 ppm or greater for purposes of complying with the disposal requirements of this subpart. For purposes of this paragraph, representative samples of mineral oil dielectric fluid are either samples taken in accordance with ASTM D 923–86 or ASTM D 923–89 (both incorporated by reference, see §761.19) or samples taken from a container that has been thoroughly mixed in a manner such that any PCBs in the container are uniformly distributed throughout the liquid in the container.

\* \* \* \* \*

9. Amend § 761.61 by revising paragraphs (a)(3)(ii) (5)(i)(B)(2)(iv), and (7), the introductory text to paragraph (a)(8), paragraphs (a)(8)(i)(A) and (B), paragraph (b), the subject heading to paragraph (c), and (c)(1) to read as follows:

**§ 761.61 PCB remediation waste.**

\* \* \* \* \*

(a) \* \* \*

(3) \* \* \*

(ii) Within 30 calendar days of receiving the notification, the EPA Regional Administrator will respond in writing approving of the self-implementing cleanup, disapproving of the self-implementing cleanup, or requiring additional information. If the EPA Regional Administrator does not respond within 30 calendar days of receiving the notice, the person submitting the notification may proceed with the cleanup according to the information the person provided to the EPA Regional Administrator. If, upon review of the notification, the EPA Regional Administrator determines that the notification does not contain all of the information required by paragraph (a)(3)(i) of this section, sufficient to ensure compliance with paragraphs (a)(4) through (9) of this section at the site, they may require the

submission of additional information. The cleanup and disposal must comply with all applicable requirements of paragraphs (a)(4) through (9) of this section. Once cleanup is underway, the person conducting the cleanup must provide any proposed changes from the notification to the EPA Regional Administrator in writing no less than 14 calendar days prior to the proposed implementation of the change. The EPA Regional Administrator will determine in their discretion whether to accept the change, and will respond to the change notification verbally within 7 calendar days and in writing within 14 calendar days of receiving it. If the EPA Regional Administrator does not respond verbally within 7 calendar days and in writing within 14 calendar days of receiving the change notice, the person who submitted it may proceed with the cleanup according to the information in the change notice provided to the EPA Regional Administrator, subject to the submission of additional information if the Regional Administrator determines it is needed to address the elements of paragraph (a)(3)(i) of this section, and in compliance with all applicable requirements of paragraphs (a)(4) through (9) of this section and other applicable requirements of this part.

\* \* \* \* \*

(5) \* \* \*

(i) \* \* \*

(B) \* \* \*

(2) \* \* \*

(iv) The generator must provide written notice, including the quantity to be shipped and highest concentration of PCBs at least 15 days before the first shipment of bulk PCB remediation waste from each cleanup site by the generator, to each off-site facility where the waste is destined for an area not subject to a TSCA PCB Disposal Approval. The generator must select applicable method(s) from the following list to extract PCBs and determine the PCB concentration from individual and composite samples of PCB remediation waste: SW-846 Method 3510C, Method 3520C, Method 3535A, Method 3540C, Method 3541, Method 3545A, Method 3546, Method 8082, Method 8082A, Method 8275A, or CWA Method 1668C (all incorporated by reference, see §761.19). Modifications to the methods listed

in this paragraph or alternative methods not listed may be used if validated under subpart Q of this part or authorized in a § 761.61(c) approval.

\* \* \* \* \*

(7) *Cap requirements.* A cap means, when referring to on-site cleanup and disposal of PCB remediation waste, a uniform placement of concrete, asphalt, or similar material of minimum thickness spread over the area where remediation waste was removed or left in place in order to prevent or minimize human exposure, infiltration of water, and erosion. Any person designing and constructing a cap must do so in accordance with § 264.310(a) of this chapter, and ensure that it complies with the permeability, sieve, liquid limit, and plasticity index parameters in § 761.75(b)(1)(ii) through (b)(1)(v). A cap of compacted soil shall have a minimum thickness of 25 cm (10 inches). A concrete or asphalt cap shall have a minimum thickness of 15 cm (6 inches). A cap must be of sufficient strength to maintain its effectiveness and integrity during the use of the cap surface which is exposed to the environment. A cap shall not be contaminated at a level  $\geq 1$  ppm PCB. Repairs shall begin within 72 hours of discovery for any breaches which would impair the integrity of the cap.

(8) *Deed restrictions for caps, fences and low occupancy areas.* When a cleanup activity conducted under this section includes the use of a fence or a cap, the owner of the site must maintain the fence or cap, in perpetuity. In addition, whenever a fence, a cap, or the procedures and requirements for a low occupancy area, is used, the owner of the site must meet the following conditions:

(i) \* \* \*

(A) Record, in accordance with State law, a notation on the deed to the property, or on some other instrument which is normally examined during a title search, that will in perpetuity notify any potential purchaser of the property:

(1) That the land, or the specific portion thereof identified in the instrument when only a portion is subject to the instrument, has been used for PCB remediation waste disposal and, when applicable, that the area is restricted to use as a low occupancy area as defined in § 761.3;

(2) Of the existence of the fence or cap and the requirement to maintain the fence or cap, when

applicable; and

(3) The applicable cleanup levels left at the site, including inside any fence, and/or under any cap, or in a low occupancy area.

(B) Submit a certification, signed by the owner, that they have recorded the notation specified in paragraph (a)(8)(i)(A) of this section to the EPA Regional Administrator.

(ii) The owner of a site being cleaned up under this section may remove a fence, cap, or low occupancy designation after conducting additional cleanup activities and achieving cleanup levels, specified in paragraph (a)(4) of this section, which do not require a fence, cap, or low occupancy designation. The owner may remove the notice on the deed no earlier than 30 days after achieving the cleanup levels specified in this section which do not require a fence, cap, or low occupancy designation.

\* \* \* \*\*

(b) *Performance-based cleanup and disposal.* Any person may clean up and dispose of PCB remediation waste at a site in full compliance with the performance-based cleanup provisions of paragraph (b)(1) of this section and disposal provisions of paragraph (b)(2) of this section. Alternatively, any person may dispose of PCB remediation waste in accordance with paragraph (b)(2) of this section, but such disposal does not relieve the site owner of cleanup and disposal obligations for any PCBs that remain on-site if the provisions of paragraph (b)(1) of this section are not complied with.

(1) *Performance-based cleanup of PCB remediation waste.*

(i) *Applicability.* (A) The performance-based cleanup option may not be used to clean up:

(1) Surface or ground waters.

(2) Sediments in marine and freshwater ecosystems.

(3) Sewers or sewage treatment systems.

(4) Any private or public drinking water sources or distribution systems.

(5) Grazing or agricultural lands.

(6) Vegetable gardens.

(7) Sites which are adjacent to, contain, or are proposed to be redeveloped to contain: residential

dwellings, hospitals, schools, nursing homes, playgrounds, parks, day care centers, endangered species habitats, estuaries, wetlands, national parks, national wildlife refuges, commercial fisheries, sport fisheries, or surface waters.

(8) Sites where the PCB contamination is in the 100-year floodplain.

(B) The performance-based cleanup provisions shall not be binding upon cleanups conducted under other authorities, including but not limited to, actions conducted under section 104 or section 106 of CERCLA, or section 3004(u) and (v) or section 3008(h) of RCRA.

(ii) *Cleanup level.* All on-site PCB remediation waste above the following cleanup levels must be disposed of or decontaminated in accordance with paragraph (b)(2) of this section.

(A) The cleanup level for bulk PCB remediation waste and porous surfaces is  $\leq 1$  ppm PCBs.

(B) The cleanup levels for liquids are the concentrations specified in §§ 761.79(b)(1) and (b)(2).

(C) The cleanup levels for nonporous surfaces are the concentrations specified in § 761.79(b)(3).

(iii) *Verification sampling.* Verification sampling for bulk PCB remediation waste and porous surfaces must be conducted in accordance with Subpart O. Verification sampling for nonporous surfaces must be conducted in accordance with Subpart P. Verification sampling for liquid PCB remediation waste must be conducted in accordance with § 761.269. When analysis of each sample results in a measurement of PCBs less than or equal to the levels specified in paragraph (b)(1)(ii) of this section, on-site performance-based cleanup is complete.

(iv) *Recordkeeping.* Recordkeeping is required in accordance with § 761.125(c)(5).

(v) *Cleanup Completion Notification.* Within 14 days of sending the final shipment of waste offsite for disposal from a site cleaned up under this paragraph, the person in charge of the cleanup or the owner of the property where the PCB remediation waste was located shall notify, in writing, the EPA Regional Administrator, the Director of the State or Tribal environmental protection agency, and the Director of the county or local environmental protection agency where the cleanup was conducted. EPA may require additional on-site cleanup upon finding that the cleanup level(s) in (b)(1)(ii) of this section have not been met. Upon review of the cleanup completion notification, EPA may request that



the responsible party submit additional information related to the records required under (b)(1)(iv) of this section to clarify that the cleanup has been completed in accordance with the requirements of this section. The notification shall include:

(A) Site identification information, including the site address and the name, phone number, and email address of the site contact;

(B) Disposal facility and shipment information, including the disposal facility's name and address, the manifest tracking number(s), and the quantity of waste shipped;

(C) A summary of all applicable components of the records in § 761.125(c)(5); and

(D) A certification using the language in § 761.3.

*(2) Performance-based disposal.*

(i) Any person disposing of liquid PCB remediation waste under this subsection shall do so according to § 761.60(a) or (e), or decontaminate it in accordance with § 761.79.

(ii) Any person disposing of non-liquid PCB remediation waste under this subsection shall do so by one of the following methods:

(A) Dispose of it in a high temperature incinerator approved under § 761.70(b), an alternate disposal method approved under § 761.60(e), a chemical waste landfill approved under § 761.75, a facility with a coordinated approval issued under § 761.77, or a hazardous waste landfill permitted by EPA under section 3005 of RCRA, or by a state authorized under section 3006 of RCRA.

(B) Decontaminate it in accordance with § 761.79.

(iii) Any person may manage or dispose of material containing <50 ppm PCBs that has been dredged or excavated from waters of the United States:

(A) In accordance with a permit that has been issued under section 404 of the Clean Water Act, or the equivalent of such a permit as provided for in regulations of the U.S. Army Corps of Engineers at 33 CFR part 320.

(B) In accordance with a permit issued by the U.S. Army Corps of Engineers under section 103 of the Marine Protection, Research, and Sanctuaries Act, or the equivalent of such a permit as provided

for in regulations of the U.S. Army Corps of Engineers at 33 CFR part 320.

(c) *Risk-based cleanup and disposal approval.* (1) Any person wishing to sample, extract, analyze, cleanup, or dispose of PCB remediation waste in a manner other than prescribed in paragraphs (a) or (b) of this section, or store PCB remediation waste in a manner other than prescribed in § 761.65, must apply in writing to the Regional Administrator in the Region where the sampling, extraction, analysis, cleanup, disposal, or storage site is located, for sampling, extraction, analysis, cleanup, disposal, or storage occurring in a single EPA Region; or to the Director, Office of Resource Conservation and Recovery, for sampling, extraction, analysis, cleanup, disposal, or storage occurring in more than one EPA Region. Each application must include information described in the notification required by paragraph (a)(3) of this section. EPA may request other information that it believes necessary to evaluate the application. No person may conduct cleanup activities under this paragraph prior to obtaining written approval by EPA.

\* \* \* \* \*

10. Amend § 761.62 by revising paragraphs (c)(1) and (d) to read as follows:

**§ 761.62 Disposal of PCB bulk product waste.**

\* \* \* \* \*

(c) \* \* \*

(1) Any person wishing to sample, extract, analyze, or dispose of PCB bulk product waste in a manner other than prescribed in paragraphs (a) or (b) of this section, or store PCB bulk product waste in a manner other than prescribed in § 761.65, must apply in writing to the Regional Administrator in the Region where the sampling, extraction, analysis, disposal, or storage site is located, for sampling, extraction, analysis, disposal, or storage occurring in a single EPA Region; or to the Director, Office of Resource Conservation and Recovery, for sampling, extraction, analysis, disposal, or storage occurring in more than one EPA Region. Each application must contain information indicating that, based on technical, environmental, or waste-specific characteristics or considerations, the proposed sampling, extraction, analysis, disposal, or storage methods or locations will not pose an unreasonable risk or

injury to health or the environment. EPA may request other information that it believes necessary to evaluate the application. No person may conduct sampling, extraction, analysis, disposal, or storage activities under this paragraph prior to obtaining written approval by EPA.

\* \* \* \* \*

(d) *Disposal as daily landfill cover.* Bulk product waste described in paragraph (b)(1) of this section may be disposed of as daily landfill cover as long as the daily cover remains in the landfill and is not released or dispersed by wind or other action.

\* \* \* \* \*

11. Amend § 761.65 by revising paragraphs (c)(9)(i) and (9)(iii) (A) and (B), and introductory paragraphs (g) and (g)(1), (1)(iv), (2), (3)(i), (4)(i) and (5),(6) and (7), and introductory paragraph (h) to read as follows:

**§ 761.65 Storage for disposal.**

\* \* \* \* \*

(c) \* \* \*

(9) \* \* \*

(i) The waste is placed in a pile or non-leaking, covered container designed and operated to control dispersal of the waste by wind, where necessary, by means other than wetting.

\* \* \* \* \*

(iii) The storage site must have:

(A) A liner or container that is designed, constructed, and installed to prevent any migration of wastes off or through the liner or container into the adjacent subsurface soil, ground water or surface water at any time during the active life (including the closure period) of the storage site. The liner or container may be constructed of materials that may allow waste to migrate into the liner or container. The liner or container must be:

(1) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic

forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation.

(2) Placed upon a foundation or base capable of providing support to the liner or container and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift.

(3) In the case of liners, installed to cover all surrounding earth likely to be in contact with the waste.

(B) A cover that meets the requirements of paragraph (c)(9)(iii)(A) of this section, is installed to cover all of the stored waste likely to be in contact with precipitation, and is secured so as not to be functionally disabled by winds expected under normal seasonal meteorological conditions at the storage site.

\* \* \* \* \*

(g) *Financial assurance for closure.* A commercial storer of PCB waste shall establish financial assurance for closure of each PCB storage facility that they own or operate. In establishing financial assurance for closure, the commercial storer of PCB waste may choose from the following financial assurance mechanisms or any combination of mechanisms:

(1) The “closure trust fund,” as specified in §264.143(a) of this chapter, except for paragraph (a)(3) of §264.143 and except when the Regional Administrator specifies modifications for the purposes of implementation under TSCA. For purposes of this paragraph, the following provisions also apply:

\* \* \*

(iv) The submission of a trust agreement with the wording specified in §264.151(a)(1) of this chapter, including any reference to hazardous waste management facilities, shall be deemed to be in compliance with the requirement to submit a trust agreement under this subpart except when the Regional Administrator specifies modifications for the purposes of implementation under TSCA.

(2) The “surety bond guaranteeing payment into a closure trust fund,” as specified in §264.143(b) of this chapter, including the use of the surety bond instrument specified at §264.151(b) of

this chapter and the standby trust specified at §264.143(b)(3) of this chapter except when the Regional Administrator specifies modifications for the purposes of implementation under TSCA. The use of the surety bonds, surety bond instruments, and standby trust agreements specified in §§264.143(b) and 264.151(b) of this chapter, with any modifications specified by the Regional Administrator, shall be deemed to be in compliance with this subpart.

(3)(i) The “surety bond guaranteeing performance of closure,” as specified at §264.143(c) of this chapter, except for paragraph (c)(5) of §264.143 of this chapter and except when the Regional Administrator specifies modifications for the purposes of implementation under TSCA. The submission and use of the surety bond instrument specified at §264.151(c) of this chapter and the standby trust specified at §264.143(c)(3) of this chapter, with any modifications specified by the Regional Administrator, shall be deemed to be in compliance with the requirements under this subpart relating to the use of surety bonds and standby trust funds.

\* \* \*

(4)(i) The “closure letter of credit” specified in § 264.143(d) of this chapter, except for paragraph (d)(8) and except when the Regional Administrator specifies modifications for the purposes of implementation under TSCA. The submission and use of the irrevocable letter of credit instrument specified in §264.151(d) of this chapter and the standby trust specified in §264.143(d)(3) of this chapter, with any modifications specified by the Regional Administrator, shall be deemed to be in compliance with the requirements of this subpart relating to the use of letters of credit and standby trust funds.

\* \* \* \*\*

(5) “Closure insurance,” as specified in §264.143(e) of this chapter, utilizing the certificate of insurance for closure specified at §264.151(e) of this chapter except when the Regional Administrator specifies modifications for the purposes of implementation under TSCA. The use of closure insurance as specified in §264.143(e) of this chapter and the submission and use of the certificate of insurance specified in §264.151(e) of this chapter, with any modifications specified by the Regional Administrator, shall be deemed to be in compliance with the requirements of this subpart relating to the use of closure

insurance.

(6) The “financial test and corporate guarantee for closure,” as described in §264.143(f) of this chapter except when the Regional Administrator specifies modifications for the purposes of implementation under TSCA, including a letter signed by the owner’s or operator’s chief financial officer as specified at §264.151(f) of this chapter and, if applicable, the written corporate guarantee specified at §264.151(h) of this chapter. The use of the financial test and corporate guarantee specified in §264.143(f) of this chapter, the submission and use of the letter specified in §264.151(f) of this chapter, and the submission and use of the written corporate guarantee specified at §264.151(h) of this chapter, with any modifications specified by the Regional Administrator, shall be deemed to be in compliance with the requirements of this subpart relating to the use of financial tests and corporate guarantees.

(7) The corporate guarantee as specified in §264.143(f)(10) of this chapter except when the Regional Administrator specifies modifications for the purposes of implementation under TSCA.

\* \* \* \*

(h) *Release of owner or operator.* Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that final closure has been completed in accordance with the approved closure plan, EPA will notify the owner or operator in writing that the owner or operator is no longer required by this section to maintain financial assurance for final closure of the facility, unless EPA has reason to believe that final closure has not been completed in accordance with the approved closure plan. EPA shall provide the owner or operator with a detailed written statement stating the reasons why EPA believed closure was not conducted in accordance with the approved closure plan.

\* \* \* \* \*

12. Add §761.66 to read as follows:

#### **§ 761.66 Emergency situations**

This section establishes procedures that may be used for purposes of the cleanup and/or disposal

of PCB waste resulting from PCB releases caused by an emergency situation as defined in § 761.3. This section allows the request of a waiver of any of the requirements in §§ 761.60, 761.61, 761.62, or 761.65. This section does not prohibit any person from implementing temporary emergency measures to prevent, treat, or contain further releases or mitigate migration to the environment of PCBs or PCB remediation waste.

(a) *Applicability.* This section may only be applied to the cleanup and/or disposal of PCB waste directly resulting from PCB releases that are caused by an emergency situation as defined in § 761.3.

(b) *Waiver Request.* Any person intending or planning to sample, extract, analyze, clean up, store, and/or dispose of PCBs under this section shall submit a waiver request to the Regional Administrator in the EPA Region where the sampling, extraction, analysis, cleanup, storage, and/or disposal is, or will be, located, in writing and/or by email no later than seven (7) days after discovery of the release or implementation of any temporary emergency measures, as applicable. If the sampling, extraction, analysis, cleanup, storage, or disposal activities in the waiver request would be conducted in more than one Region, then the waiver request must be submitted, in its entirety, to the Regional Administrators for all affected Regions.

(1) This request shall include:

(i) The contact information for the person requesting the waiver.

(ii) Location(s) of the release(s).

(iii) A description of the emergency situation and the adverse conditions caused by the emergency situation.

(iv) The type(s) of material(s) that are contaminated and the source of the release, if known.

(v) The as-found PCB concentrations in the PCB waste, unless the materials are being managed as if they contain  $\geq 500$  ppm PCBs. If actual PCB concentrations have not yet been determined, then estimated concentrations may be provided in the request. Actual PCB concentrations shall be determined before disposal activities commence, unless the waste is being managed as if it contains  $\geq 500$  ppm PCBs.

(vi) The provisions of §§ 761.60, 761.61, 761.62, or 761.65 that the person requests to waive or modify (or to use alternative procedures for) and an explanation of why compliance with the existing provisions would be impracticable as a result of the emergency situation.

(vii) The plan for how sampling, extraction, analysis, storage, cleanup, and/or disposal of the PCB waste would be conducted if the relief described in paragraph (b)(v) of this section were granted. The plan shall provide information to support how the actions described in the plan do not pose an unreasonable risk of injury to health or the environment. This plan shall be based on the as-found PCB concentrations in the materials unless waste is being managed as if it contained PCBs  $\geq 500$  ppm.

(viii) Whether or not the PCB waste is near, or likely to impact, surface waters, ground waters, drinking water sources or distribution systems, wells, sediments, sewers or sewage treatment systems, grazing lands, vegetable gardens, residential dwellings, hospitals, schools, nursing homes, playgrounds, parks, day care centers, endangered species habitats, estuaries, wetlands, national parks, national wildlife refuges, commercial fisheries, or sport fisheries and how those areas and potential impacts will be addressed.

(2) To make changes to submitted information described in (b)(1) of this section, the requestor shall submit the new information to the EPA Regional Administrator(s) in writing and/or by email.

(c) *Approval of waiver requests.* The EPA Regional Administrator may approve the waiver request, request additional information, approve the waiver request with specified changes or additional conditions, or deny the waiver request, in writing, by telephone, or by email. An approval, with or without changes or conditions, shall be based on the Regional Administrator's finding that compliance with the regulatory requirements from which a waiver is sought is impracticable and that the action approved under the waiver will not pose an unreasonable risk of injury to health or the environment. At any point, EPA may require additional sampling, extraction, analysis, cleanup, storage, and/or disposal requirements, or require the requestor to delay acting on their proposed plan, in order to ensure the actions will not pose an unreasonable risk of injury to health or the environment.

(d) Sampling, extraction, analysis, cleanup, storage, and disposal activities as described in the



waiver request may begin after the EPA Regional Administrator responds with approval of the waiver request. All sampling, extraction, analysis, cleanup, storage, and disposal activities shall be conducted in compliance with the terms of the approval and all applicable provisions §§ 761.60, 761.61, 761.62, and 761.65 not expressly waived by the approval.

(e) Sampling, extraction, analysis, cleanup, storage, and disposal activities conducted under this section shall be based on the as-found concentration of the PCB waste unless the materials are being managed as if they contain  $\geq 500$  ppm PCBs.

(f) *Records, manifests, and certification.* Recordkeeping and certification are required in accordance with § 761.125(c)(5). The manifesting and reporting requirements in Subpart K apply to waste disposed of under this section. However, if the person requesting a waiver has not previously submitted a notification of PCB activity as described in § 761.205 and the requirements of § 761.205 specify that such notification is required for the cleanup, storage, and/or disposal activity, the requestor shall submit the notification within ten (10) business days of their waiver request. The requestor does not have to wait to obtain their EPA identification number before initiating cleanup and/or disposal activities described in their approved waiver request. While waiting for their identification number, the requestor may use the generic identification “40 CFR part 761” in lieu of an EPA identification number on manifests for PCB waste. The requestor may alternatively use an EPA identification number they previously obtained from EPA under RCRA or a state under an authorized RCRA program, if they have one. Once the requestor receives an EPA identification number, they shall use it on manifests for PCB waste.

13. Amend § 761.70 by revising paragraph (d)(4)(i) to read as follows:

**§ 761.70 Incineration.**

\* \* \* \* \*

(d) \* \* \*

(4) \* \* \*

(i) Except as provided in paragraph (d)(5) of this section, the Regional Administrator or the

appropriate official at EPA Headquarters may not approve an incinerator for the disposal of PCBs and PCB Items unless they find that the incinerator meets all of the requirements of paragraphs (a) and/or (b) of this section.

\* \* \* \* \*

14. Amend § 761.71 by revising paragraph (b)(2)(iv) and (vi) to read as follows:

**§ 761.71 High efficiency boilers.**

\* \* \* \* \*

(b) \* \* \*

(2) \* \* \*

(iv) The type of equipment, apparatus, and procedures to be used to control the feed of PCB liquids to the boiler and to monitor and record the carbon monoxide concentration and excess oxygen percentage in the stack.

\* \* \* \* \*

(vi) The concentration of PCBs and of any other chlorinated hydrocarbon in the waste and the results of analyses using the ASTM International methods as follows: Carbon and hydrogen content using ASTM D5373-16, nitrogen content using ASTM E258-67 (Reapproved 1987) or ASTM D5373-16, sulfur content using ASTM D1266-87, or ASTM D129-64 (Reapproved 1978), chlorine content using ASTM D808-87, water and sediment content using either ASTM D2709-88 or ASTM D1796-83 (Reapproved 1990), ash content using ASTM D482-13, calorific value using ASTM D240-87, carbon residue using either ASTM D2158-89 or ASTM D524-88, and flash point using ASTM D93-09, ASTM D8174-18, ASTM D8175-18, or ASTM D3278-96 (all incorporated by reference, see §761.19).

\* \* \* \* \*

15Amend § 761.75 by revising paragraphs (b)(8)(iii) and (c)(3)(i) and (4) to read as follows:

**§ 761.75 Chemical waste landfills.**

\* \* \* \* \*

(b) \* \* \*

(8) \* \* \*

(iii) Ignitable wastes shall not be disposed of in chemical waste landfills. Liquid ignitable wastes are wastes that have a flash point less than 60 degrees C (140 degrees F) as determined by the following method or an equivalent method: Flash point of liquids shall be determined by a Pensky-Martens Closed Cup Tester, using the protocol specified in ASTM D93-09 or ASTM D8175-18, or a Small Scale Closed Cup Tester, using the protocol specified in ASTM D3278-96 (Reapproved 2011) or ASTM D8174-18 (all incorporated by reference, §761.19).

\* \* \* \* \*

(c) \* \* \*

(3) \* \* \*

(i) Except as provided in paragraph (c)(4) of this section the Regional Administrator may not approve a chemical waste landfill for the disposal of PCBs and PCB Items, unless they find that the landfill meets all of the requirements of paragraph (b) of this section.

\* \* \* \* \*

(4) *Waivers.* An owner or operator of a chemical waste landfill may submit evidence to the Regional Administrator that operation of the landfill will not present an unreasonable risk of injury to health or the environment from PCBs when one or more of the requirements of paragraph (b) of this section are not met. On the basis of such evidence and any other available information, the Regional Administrator may in their discretion find that one or more of the requirements of paragraph (b) of this section is not necessary to protect against such a risk and may waive the requirements in any approval for that landfill. Any finding and waiver under this paragraph will be stated in writing and included as part of the approval.

\* \* \* \* \*

16. Amend § 761.77 by revising paragraphs (a)(1)(ii)(B), introductory paragraph (a)(2), and introductory paragraph (b) to read as follows:

**§ 761.77 Coordinated approval.**

\* \* \* \* \*

(a) \* \* \*

(1) \* \* \*

(ii) \* \* \*

(B) Issue a letter granting or denying the TSCA PCB Coordinated Approval. If the EPA Regional Administrator grants the TSCA PCB Coordinated Approval, they may acknowledge the non-TSCA approval meets the regulatory requirements under TSCA as written, or require additional conditions the EPA Regional Administrator has determined are necessary to prevent unreasonable risk of injury to health or the environment.

\* \* \* \* \*

(2) The EPA Regional Administrator may issue a notice of deficiency, revoke the TSCA PCB Coordinated Approval, require the person to whom the TSCA PCB Coordinated Approval was issued to submit an application for a TSCA PCB approval, or bring an enforcement action under TSCA if they determine that:

\* \* \*

(b) Any person who owns or operates a facility that they intend to use to landfill PCB wastes; incinerate PCB wastes; dispose of PCB wastes using an alternative disposal method that is equivalent to disposal in an incinerator approved under §761.70 or a high efficiency boiler operating in compliance with §761.71; or stores PCB wastes may apply for a TSCA PCB Coordinated Approval. The EPA Regional Administrator may approve the request if the EPA Regional Administrator determines that the activity will not pose an unreasonable risk of injury to health or the environment and the person:

\* \* \* \* \*

17. Amend § 761.79 by revising paragraph (h)(3) to read as follows:

**§ 761.79 Decontamination standards and procedures.**

\* \* \* \* \*

(h) \* \* \*

(3) Any person wishing to sample, extract, or analyze decontaminated material in a manner other than prescribed in paragraph (f) of this section must apply in writing to the Regional Administrator in the Region where the activity would take place, for decontamination activity occurring in a single EPA Region; or to the Director, Office of Resource Conservation and Recovery, for decontamination activity occurring in more than one EPA Region. Each application must contain a description of the material to be decontaminated, the nature and PCB concentration of the contaminating material (if known), the decontamination method, the proposed extraction, analysis, and/or sampling procedure, and a justification for how the proposed extraction, analysis, and/or sampling is equivalent to or more comprehensive than the extraction, analysis, and/or sampling procedure required under paragraph (f) of this section.

\* \* \* \* \*

#### **Subpart G—PCB Spill Cleanup Policy**

18. Amend § 761.120 by revising paragraphs (b)(2) and (c) to read as follows:

##### **§ 761.120 Scope.**

\* \* \* \* \*

(b) \* \* \*

(2) In those situations, the Regional Administrator may require cleanup in addition to that required under § 761.125(b) and (c). However, the Regional Administrator must first make a finding, based on the specific facts of a spill, that additional cleanup is necessary to prevent unreasonable risk. In addition, before making a final decision on additional cleanup, the Regional Administrator must notify the Director, Office of Resource Conservation and Recovery of their finding and the basis for the finding.

\* \* \* \* \*

(c) *Flexibility to allow less stringent or alternative requirements.* (1) EPA retains the flexibility to allow less stringent or alternative decontamination measures based upon site-specific considerations. EPA will exercise this flexibility if the responsible party demonstrates that cleanup to the numerical

decontamination levels is clearly unwarranted because of risk-mitigating factors, that compliance with the procedural requirements or numerical standards in the policy is impracticable at a particular site, or that site-specific characteristics make the costs of cleanup prohibitive. The Regional Administrator will notify the Director, Office of Resource Conservation and Recovery of any decision and the basis for the decision to allow less stringent cleanup. The purpose of this notification is to enable the Director, Office of Resource Conservation and Recovery to ensure consistency of spill cleanup standards under special circumstances across the regions.

(2) In emergency situations, as defined in § 761.123, the following provisions of this Policy are hereby modified as follows:

(i) For actions taken directly in response to spills caused by emergency situations, responsible parties may use the as-found concentrations in the spill materials when determining whether to manage the spill under § 761.125(b) or (c) of this Policy when it is not possible to readily determine the spill source concentration at a site.

(ii) For spills caused by emergency situations, the applicable notifications in § 761.125(a)(1) must be submitted as soon as possible, but no later than seven (7) days after the adverse conditions that prevented notification have ended.

\* \* \* \* \*

19. Amend § 761.123 by:

a. Adding the definition “Emergency situation” in alphabetical order ; and

b. Revising the definitions “Other restricted access (nonsubstation) locations” and “Spill”.

The revisions and additions read as follows:

#### **§ 761.123 Definitions.**

\* \* \* \* \*

*Emergency situation* means adverse conditions caused by manmade or natural incidents that threaten lives, property, or public health and safety; require prompt responsive action from the local, state, tribal, territorial, or federal government; and result in: (1) a declaration by either the President of

the United States or Governor of the affected state of a natural disaster or emergency; or, (2) an incident funded under FEMA via a Stafford Act disaster declaration or emergency declaration. Examples of emergency situations may include civil emergencies or adverse natural conditions, such as hurricanes, earthquakes, or tornados.

\* \* \*

*Other restricted access (nonsubstation) locations* means areas other than electrical substations that are at least 0.1 kilometer (km) from a residential/commercial area and limited by man-made barriers (e.g., fences and walls) or substantially limited by naturally occurring barriers such as mountains, cliffs, or rough terrain. These areas generally include industrial facilities and extremely remote rural locations. (Areas where access is restricted but are less than 0.1 km from a residential/commercial area are considered to be residential/commercial areas.)

\* \* \*

*Spill* means both intentional and unintentional spills, leaks, and other uncontrolled discharges where the release results in any quantity of PCBs running off or about to run off the external surface of the equipment or other PCB source, as well as the contamination resulting from those releases. This policy applies to spills of 50 ppm or greater PCBs. The concentration of PCBs spilled is determined by the PCB concentration in the material spilled as opposed to the concentration of PCBs in the material onto which the PCBs were spilled, except where authorized in § 761.120(c). Where a spill of untested mineral oil occurs, the oil is presumed to contain greater than 50 ppm, but less than 500 ppm PCBs and is subject to the relevant requirements of this policy.

\* \* \* \* \*

20. Amend § 761.125 by revising paragraphs (a)(2), (c)(3)(iii), and (4)(iv) to read as follows:

**§ 761.125 Requirements for PCB spill cleanup.**

(a) \* \* \*

(2) *Disposal of cleanup debris and materials.* All concentrated soils, solvents, rags, and other materials resulting from the cleanup of PCBs under this policy shall be properly stored, labeled, and

disposed of at a facility with a TSCA disposal approval issued under Subpart D of this part.

\* \* \* \* \*

(c) \* \* \*

(3) \* \* \*

(iii) At the option of the responsible party, low-contact, indoor, nonimpervious surfaces will be cleaned either to 10 µg/100 cm<sup>2</sup> or to 100 µg/100 cm<sup>2</sup> and encapsulated. The Regional Administrator, however, retains the authority to disallow the encapsulation option for a particular spill situation upon finding that the uncertainties associated with that option pose special concerns at that site. That is, the Regional Administrator would not permit encapsulation if they determine that if the encapsulation failed the failure would create an imminent hazard at the site.

\* \* \* \* \*

(4) \* \* \*

(iv) At the option of the responsible party, low-contact, outdoor, nonimpervious solid surfaces shall be either cleaned to 10 µg/100 cm<sup>2</sup> or cleaned to 100 µg/100 cm<sup>2</sup> and encapsulated. The Regional Administrator, however, retains the authority to disallow the encapsulation option for a particular spill situation upon finding that the uncertainties associated with that option pose special concerns at that site. That is, the Regional Administrator would not permit encapsulation if they determine that if the encapsulation failed the failure would create an imminent hazard at the site.

\* \* \* \* \*

21. Amend § 761.130 by revising paragraph (e) to read as follows:

**§ 761.130 Sampling requirements.**

\* \* \* \* \*

(e) EPA recommends the use of a sampling scheme developed by the Midwest Research Institute (MRI) for use in enforcement inspections: “Verification of PCB Spill Cleanup by Sampling and Analysis.” Guidance for the use of this sampling scheme is available in the MRI report “Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup.” Both the MRI sampling scheme and the



guidance document are available on EPA's PCB Web site at <https://www.epa.gov/pcbs>, or from the Program Implementation and Information Division, Office of Resource Conservation and Recovery (5303P), 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001. The major advantage of this sampling scheme is that it is designed to characterize the degree of contamination within the entire sampling area with a high degree of confidence while using fewer samples than any other grid or random sampling scheme. This sampling scheme also allows some sites to be characterized on the basis of composite samples.

\* \* \* \* \*

## **Subpart J—General Records and Reports**

22. Amend § 761.180 by:

- a. Revising introductory paragraph (b)(3),
- b. Reserving paragraph (b)(3)(ii); and
- c. Revising paragraph (b)(4).

The revisions read as follows:

### **§ 761.180 Records and monitoring.**

\* \* \* \* \*

(b) \* \* \*

(3) The owner or operator of a PCB disposal facility (including an owner or operator who disposes of his/her own waste and does not receive or generate manifests) or a commercial storage facility shall submit an annual report using EPA Form XXXX-YY, which briefly summarizes the records and annual document log required to be maintained and prepared under paragraphs (b)(1) and (2) of this section to the Director, Office Resource Conservation and Recovery at the address listed on the form, by July 15 of each year, beginning with July 15, 1991. The first annual report submitted on July 15, 1991, shall be for the period starting February 5, 1990, and ending December 31, 1990. The annual report shall contain no confidential business information. The annual report shall consist of the information listed in paragraphs (b)(3)(i) through (vi) of this section.

\* \* \* \* \*

(ii) [Reserved]

\* \* \* \* \*

(4) Whenever a commercial storer of PCB waste accepts PCBs or PCB Items at their storage facility and transfers the PCB waste off-site to another facility for storage or disposal, the commercial storer of PCB waste shall initiate a manifest under subpart K of this part for the transfer of PCBs or PCB Items to the next storage or disposal facility.

\* \* \* \* \*

### **Subpart K—PCB Waste Disposal Records and Reports**

23. In § 761.205 revise paragraphs (a)(3) and (4)(v) and (d) to read as follows:

#### **§ 761.205 Notification of PCB waste activity (EPA Form 7710-53).**

(a) \* \* \*

(3) Any person required to notify EPA under this section shall file with EPA Form 7710–53. Copies of EPA Form 7710–53 are available on EPA’s Web site at <https://www.epa.gov/pcbs>, or from the Program Implementation and Information Division, Office of Resource Conservation and Recovery (5303P), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460–0001 ATTN: PCB Notification. Descriptive information and instructions for filling in the form are included in paragraphs (a)(4)(i) through (vii) of this section.

(4) \* \* \*

(v) The facility's installation contact, telephone number, and email address.

\* \* \*

(d) Persons required to notify under this section shall file EPA Form 7710–53 with EPA by mailing the form to the address listed on the form.

\* \* \* \* \*

24. Amend § 761.207 by:

a. Revising paragraph (a),

- b. Adding paragraphs (a)(4) and (5); and
- c. Revising the “Note 2 to Paragraph (a) and paragraph (c).

The revisions and addition read as follows:

**§ 761.207 The manifest – general requirements.**

(a) A generator who transports, or offers for transport PCB waste for commercial off-site storage or off-site disposal, and commercial storage or disposal facility who offers for transport a rejected load of PCB waste, must prepare a manifest on EPA Form 8700–22, and, if necessary, a continuation sheet.

The generator shall specify:

(1) For each bulk load of PCBs, the identity of the PCB waste, the earliest date of removal from service for disposal, and the weight in kilograms of the PCB waste. (Item 14—Special Handling Instructions box)

(2) For each PCB transformer, the serial number if available, or other identification if there is no serial number; the date of removal from service for disposal; and weight in kilograms of the PCB waste in each PCB transformer. (Item 14—Special Handling Instructions box)

(3) For each PCB Large High or Low Voltage Capacitor, the serial number if available, or other identification if there is no serial number; the date of removal from service for disposal; and weight in kilograms of the PCB waste in each PCB Large High or Low Voltage Capacitor. (Item 14—Special Handling Instructions box)

(4) For each PCB Article Container, the unique identifying number, type of PCB waste (e.g., small capacitors), earliest date of removal from service for disposal, and weight in kilograms of the PCB waste contained therein. (Item 14—Special Handling Instructions box)

(5) For each PCB Container, the unique identifying number, type of PCB waste (e.g., soil, debris, small capacitors), earliest date of removal from service for disposal, and weight in kilograms of the PCB waste contained therein. (Item 14—Special Handling Instructions box)

\* \* \* \* \*

NOTE 2 TO PARAGRAPH (a): PCB waste handlers should use the EPA Form 8700-22

instructions as a guide, but should defer to the Part 761 manifest regulations whenever there is any difference between the Part 761 requirements and the instructions. The differences should be minimal.

\* \* \* \* \*

(c) A generator may also designate on the manifest one alternate facility which is approved to handle their PCB waste in the event an emergency prevents delivery of the waste to the primary designated facility.

\* \* \* \* \*

25. Amend § 761.212 by revising introductory paragraph (a) to read as follows:

**§ 761.212 Transporter compliance with the manifest.**

(a) The transporter must deliver the entire quantity of PCB waste which they have accepted from a generator or a transporter to:

\* \* \* \* \*

26. Amend § 761.213 by revising introductory paragraph (a)(2) and introductory paragraph (b) to read as follows:

**§ 761.213 Use of the manifest-Commercial storage and disposal facility requirements.**

(a) \* \* \*

(2) If a commercial storage or disposal facility receives an off-site shipment of PCB waste accompanied by a manifest, the owner or operator, or their agent, shall:

\* \* \*

(b) If a commercial storage or disposal facility receives, from a rail or water (bulk shipment) transporter, PCB waste which is accompanied by a shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator's certification, and signatures), the owner or operator, or their agent, must:

\* \* \* \* \*

27. Amend § 761.214 by revising paragraph (a)(1) to read as follows:

**§ 761.214 Retention of manifest records.**

(a)(1) A generator must keep a copy of each manifest signed in accordance with §761.210(a) for three years or until they receive a signed copy from the designated facility which received the PCB waste. This signed copy must be retained as a record for at least three years from the date the waste was accepted by the initial transporter. A generator subject to annual document requirements under §761.180 shall retain copies of each manifest for the period required by §761.180(a).

\* \* \* \* \*

28. Amend § 761.216 by revising introductory paragraph (a) and paragraph (6) to read as follows:

**§ 761.216 Unmanifested waste report.**

(a) If a facility accepts for storage or disposal any PCB waste from an offsite source without an accompanying manifest, or without an accompanying shipping paper as described by §761.211(e), and the owner or operator of the commercial storage or disposal facility cannot contact the generator of the PCB waste, then they shall notify the Regional Administrator of the EPA region in which their facility is located of the unmanifested PCB waste so that the Regional Administrator can determine whether further actions are required before the owner or operator may store or dispose of the unmanifested PCB waste, and additionally the owner or operator must prepare and submit a letter to the Regional Administrator within 15 days after receiving the waste. The unmanifested waste report must contain the following information:

\* \* \* \* \*

(6) Signature of the owner or operator of the facility or their authorized representative; and

\* \* \* \* \*

29. Amend§ 761.217 by revising paragraph (a)(2)(ii) to read as follows:

**§ 761.217 Exception reporting.**

(a) \* \* \*

(2) \* \* \*

(ii) A cover letter signed by the generator or their authorized representative explaining the efforts taken to locate the PCB waste and the results of those efforts.

\* \* \* \* \*

**Subpart M—Determining a PCB Concentration for Purposes of Abandonment or Disposal of Natural Gas Pipeline: Selecting Sites, Collecting Surface Samples, and Analyzing Standard PCB Wipe Samples**

30. Amend § 761.243 by revising paragraph (a) to read as follows:

**§ 761.243 Standard wipe sample method and size.**

(a) Collect a surface sample from a natural gas pipe segment or pipeline section using a standard wipe test as defined in § 761.123. Detailed guidance for the entire wipe sampling process appears in the document entitled, “Wipe Sampling and Double Wash/ Rinse Cleanup as Recommended by the Environmental Protection Agency PCB Spill Cleanup Policy,” dated June 23, 1987 and revised on April 18, 1991. This document is available on EPA’s Web site at <https://www.epa.gov/pcbs>, or from the Program Implementation and Information Division, Office of Resource Conservation and Recovery (5303P), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460–0001.

\* \* \* \* \*

31. Amend § 761.247 by revising paragraph (b)(2)(ii)(B)(2) to read as follows:

**§ 761.247 Sample site selection for pipe segment removal.**

(b) \* \* \*

(2) \* \* \*

(ii) \* \* \*

(B) \* \* \*

(2) Divide the total number of segments in a pipeline, save one, by six. The resulting number is the interval between the segments you will sample. Do not round this interval. For example, cut a 2.9-mile length of pipeline into segments of no more than 40 feet by first, dividing 2.9 miles (15,312 feet) by 40

feet per segment, resulting in 382.8 total segments. Do not round this result. Subtract 1 from the total number of segments and then divide the remaining number of segments, 381.8, by six. The resulting number in this example is 63.6. Do not round. Add 63.6 to the first segment (number 1) to select segment 64.6. Next, add 63.6 to 64.6 to select segment 128.3. Continue in this fashion to select all seven segments: 1, 64.6, 128.3, 191.9, 255.5, 319.2, and 382.8. Now round these numbers to the nearest whole number to determine which segment to sample: 1, 65, 128, 192, 256, 319, and 383.

\* \* \* \* \*

32. Amend § 761.253 by revising paragraph (a) to read as follows:

**§ 761.253 Chemical analysis**

(a) Select applicable method(s) from the following list to extract PCBs and determine the PCB concentration from the standard wipe sample collection medium: SW-846 Method 3540C, Method 3541, Method 3545A, Method 3546, Method 8082, Method 8082A, Method 8275A, or CWA Method 1668C (all incorporated by reference, see §761.19). Modifications to the methods listed in this paragraph or alternative methods not listed may be used if validated under Subpart Q of this part or authorized in a § 761.61(c) approval.

\* \* \* \* \*

**Subpart N—Cleanup Site Characterization Sampling for PCB Remediation Waste in Accordance with § 761.61(a)(2)**

33. Amend § 761.267 by revising paragraph (a) to read as follows:

**§ 761.267 Sampling non-porous surfaces.**

(a) Sample large, nearly flat, non-porous surfaces by dividing the surface into roughly square portions approximately 2 meters on each side. Follow the procedures in § 761.302(a) with the exception of the sampling grid size.

\* \* \* \* \*

34. Revise § 761.272 to read as follows:

**§ 761.272 Chemical extraction and analysis of samples.**

Select applicable method(s) from the following list to extract PCBs and determine the PCB concentration from individual and composite samples of PCB remediation waste: SW-846 Method 3510C, Method 3520C, Method 3535A, Method 3540C, Method 3541, Method 3545A, Method 3546, Method 8082, Method 8082A, Method 8275A, or CWA Method 1668C (all standards incorporated by reference in §761.19). Modifications to the methods listed in this paragraph or alternative methods not listed may be used if validated under Subpart Q of this part or authorized in a 40 CFR 761.61(c) approval.

**Subpart O—Sampling to Verify Completion of Self-Implementing Cleanup and On-site Disposal of Bulk Remediation Waste and Porous Surfaces in Accordance with § 761.61(a)(6)**

35. Revise § 761.292 to read as follows:

**§ 761.292 Chemical extraction and analysis of individual samples and composite samples.**

Select applicable method(s) from the following list to extract PCBs and determine the PCB concentration from individual and composite samples of PCB remediation waste: SW-846 Method 3510C, Method 3520C, Method 3535A, Method 3540C, Method 3541, Method 3545A, Method 3546, Method 8082, Method 8082A, Method 8275A, or CWA Method 1668C (all standards incorporated by reference in §761.19). Modifications to the methods listed in this paragraph or alternative methods not listed may be used if validated under Subpart Q of this part or authorized in a 761.61(c) approval.

**Subpart P—Sampling Non-Porous Surfaces for Measurement-Based Use, Reuse, and On-site or Off-Site Disposal Under § 761.61(a)(6) and Determination Under § 761.79(b)(3)**

\* \* \* \* \*

35. Revise § 761.314 to read as follows:

**§ 761.314 Chemical analysis of standard wipe test samples.**

Perform the chemical analysis of standard wipe test samples in accordance with §761.253. Report sample results in micrograms per 100 cm<sup>2</sup>.

**Subpart R—Sampling Non-Liquid, Non-Metal PCB Bulk Product Waste for Purposes of Characterization for PCB Disposal in Accordance with § 761.62, and Sampling PCB Remediation**



## **Waste Destined for Off-Site Disposal, in Accordance With § 761.61**

36. Revise § 761.358 to read as follows:

### **§ 761.358 Determining the PCB concentration of samples of waste.**

Select applicable method(s) from the following list to extract PCBs and determine the PCB concentration from individual and composite samples of PCB remediation waste or PCB bulk product waste: SW-846 Method 3540C, Method 3541, Method 3545A, Method 3546, Method 8082, Method 8082A, Method 8275A, or CWA Method 1668C (all incorporated by reference, see §761.19).

Modifications to the methods listed in this paragraph or alternative methods not listed may be used if validated under subpart Q of this part or authorized in a §761.61(c) or §761.62(c) approval.

### **Subpart T—Comparison Study for Validating a New Performance-Based Decontamination**

#### **Solvent Under § 761.79(d)(4)**

37. Amend § 761.386 by revising paragraph (e) to read as follows:

#### **§ 761.386 Required experimental conditions for the validation study and subsequent use during decontamination.**

\* \* \* \* \*

(e) *Confirmatory sampling for the validation study.* Select surface sample locations using representative sampling or a census. Sample a minimum area of 100 cm<sup>2</sup> on each individual surface in the validation study. Measure surface concentrations using the standard wipe test, as defined in § 761.123, from which a standard wipe sample is generated for chemical analysis. Guidance for wipe sampling appears in the document entitled “Wipe Sampling and Double Wash/ Rinse Cleanup as Recommended by the Environmental Protection Agency PCB Spill Cleanup Policy,” available on EPA’s Web site at <https://www.epa.gov/pcbs>, or from the Program Implementation and Information Division, Office of Resource Conservation and Recovery (5303P), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460–0001

\* \* \* \* \*

38. Amend § 761.395 by revising paragraph (b)(1) to read as follows:

**§ 761.395 A validation study.**

\* \* \* \* \*

(b) \* \* \*

(1) Select applicable method(s) from the following list to extract PCBs and determine the PCB concentration from the standard wipe sample collection medium: SW-846 Method 3540C, Method 3541, Method 3545A, Method 3546, Method 8082, Method 8082A, Method 8275A, or CWA Method 1668C (all incorporated by reference, see §761.19). Modifications to the methods listed in this paragraph or alternative methods not listed may be used if validated under subpart Q of this part.

\* \* \* \* \*

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